# Regional Survey in the Mediterranean:

# Presentations, Re-presentations and Archaeological Landscapes.

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# Abstract

Archaeological publications are the only contact many people will have with a project's work. The impression made by these publications, the style in which information is shared and the image they create of a project's work need to be good, efficient and as complete as possible. As the established methodologies of intensive survey become widely applied by an increasing number of regional archaeological projects throughout the Mediterranean, it is apposite to consider the publications produced by them. In this dissertation I study the philosophical background of report writing, the techniques used to present data and the resulting re-presentations of their subjects with particular reference to ten survey projects from around the Mediterranean. No archaeological project can stand alone and so I discuss the possibilities of drawing comparisons between the reports. I also briefly consider and quickly dismiss the possibility of a standardised approach to archaeological report writing.

# Contents

# List of Figures



# List of Tables

# Preface

Survey archaeology is no different from any other branch of the discipline in its reliance on publication. Without comprehensive reporting to disseminate news of results, improving techniques and lessons learned there is a danger of archaeology stagnating as projects cease to communicate and become isolated. There is, in fact, little likelihood of this happening; regional survey is a vibrant and relatively new branch of archaeology. Whilst broadly recognised methods of survey, collection and recording begin to be widely adopted many projects maintain an element of experimentation in their work. Survey archaeology is self-critical and always seeking to improve itself.

At the heart of this continued self-awareness, experimentation and improvement is efficient communication. I am interested in communication through the survey report; whether it is a brief preliminary summary or a long awaited final publication the survey report is the physical manifestation of all the fieldwork and academic debate that has gone into a project. There can be very few – if any – survey reports that fail entirely to communicate why work took place and what resulted, but many could do the task better. Too often publications seem to serve the archaeologist rather than the readers; language can become so technical as to be impenetrable whilst a confusion of graphs and tables distort and disguise such data as are left to them. With only a modicum of extra effort and discussion many good publications could become excellent publications.

In this dissertation I will look at ways of putting information down on the page so that it is easy to take up again; the page should always be accessible to everyone, but essentially I will be concentrating on writing for a readership of archaeologists. That said, the readership is broad, and ideally all readers could use one book, whether for a brief introduction to a topic, or for primary data to build their own reinterpretation.

Inextricably linked with putting the information onto a page is the picture that readers build for themselves when they read a report. Clearly, the archaeologist had an image of the surveyed landscape when the report was written. That image was encoded into the words, numbers and pictures of the report, but whether or not a reader extracts that original image as they read depends on several things. The style of writing, the use of illustrations, tables

or technical explanations of methodology will all affect it; so too will a reader's level of skill in understanding reports or experience in the publication's subject matter. How these presentations and re-presentations interact with each other and what they add up to are studied in the pages that follow.

## Acknowledgements

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# How to use this publication

In an effort to practice what I preach, this section highlights any out of the ordinary approaches I have adopted in this dissertation. It is perhaps superfluous in a document as short, simple and conservative as this one, but in a large monograph, simple explanations of, for example, innovative data graphics could give a reader more efficient access to the data contained in them. This section is closely associated with the glossary of terms, which in this case gives not only a definition and short explanation but also, where appropriate, a reference which identifies the section in the dissertation where more discussion or explanation can be found.

**Bullet points**

Bullet points appear at the head of many sections. These are not subheadings – although sometimes there is some overlap – but ideas and topics covered in the pages to come.

**Referencing**

The Harvard system is used throughout. Citations in the text follow the standard format but there has been some experimentation with the layout of the bibliography. The changes are minor but it is hoped that the bibliography is easier to read and navigate as a result. Authors' names are in bold type, which makes them easier to pick out – particularly those embedded in another reference. To avoid repetition, edited volumes are cited in full as a separate entry and papers from them refer to this main entry by author and year only.

**Integration of Pictures and Graphics**

Whilst pictures and graphics are numbered, there are few references to these numbers in the text. This is because I have tried to treat pictures and graphics as data-paragraphs that follow smoothly on from the text that precedes them and logically lead on to that which follows. The experiment has been only partially successful; in Chapter 4 it would be preferable to open each section with a location map. Rather than repeat the same map ten times, and since small details proved impractical, I have printed the map just once. This is not ideal as, after the first project, the visual data and the written data become separated. A possible alternative would have been to have a fold out page at the end of the chapter – the whole map could then have been viewed alongside each project's discussion.

# Glossary of terms

Where applicable, a reference is given to a section number in the dissertation where further discussion can be found.

| *Term* | *Explanation* | *Reference* |
|---|---|---|
| ADS | Archaeological Data Service - http://ads.ahds.ac.uk | |
| Archaeological Landscape | The wider context within which the archaeology existed. | 1.2.4 |
| Disciplines | The specialists skills employed in regional survey. | |
| Format | Page layouts, fonts, styles, language. | |
| LBK | Linearbandkeramik | 2.2 |
| MAP 2 | The Management of Archaeolgical Projects - published by English Heritage: http://www.eng-h.gov.uk/guidance/map2 | 1.1 |
| Mediterranean | Dry land in an area that stretches, loosely, from Gibraltar to the Levant, from the seashore to the watershed and includes all islands. | 1.2.1 |
| POSI | Place Of Special Interest. | 2.1 |
| PRAP | Pylos Regional Archaeological Project. | 3.9 |
| Presentation | The elements and make up of a survey project's report. | 1.2.5<br>2.4 |
| Regional Survey | The study of material culture within the context of a landscape. | 1.2.3 |
| Re-Presentation | The final manifestation of a survey project's report | 1.2.6<br>2.3 |
| SCSP | Sydney Cyprus Survey Project | 3.11 |
| Survey | The study of an area through the surface evidence | 1.2.2<br>2.1 |
| TASP | Troodos Archaeological Survey Project | |
| ULVS | UNESCO Libyan Valleys Archaeological Survey | 3.8 |

# 1 Introduction

## 1.1 Aims and Approaches

- Communication
- Responsibility

There is considerable debate over some finer points of definition within the world of survey and it is surprising how many archaeologists, survey archaeologists amongst them, still see survey as little more than a precursor to excavation. As survey gained in popularity over the years and developed toward legitimacy, so its proponents became increasingly aware of the need for explicit, justifiable methodologies. The result is that regional survey is solidly established within Mediterranean archaeology, widely applied and recognised, largely without question, as a valid method of data collection. However, the standard of publication produced, using these broadly similar collection methods is variable, ranging from communicative and graphically innovative to impenetrable and graphically challenged. Published results are the first point of contact for anyone approaching a project from the outside; it is therefore vital that results are presented in such a way as to allow the archaeological community outwith a project to understand them easily and intuitively. Without such understanding the comparison of projects – made difficult by differing approaches and methodologies – becomes impossible. Without comparison each project stands alone – isolated and all but incommunicado. The author's progress to publication from fieldwork results, through analysis and interpretation should be transparent and the elements laid out in such a way as to enable the reader to make a similar progression, whatever their respective final interpretations may be.

Any archaeological report contains elements of both presentation and re-presentation – they are inseparable. Presentation concerns the physical aspects of a report, its format, its layout, the medium in which it is published and so forth. Re-presentation, written with a hyphen to distinguish it from straightforward representation, has more to do with the publication as a whole and the image of its subject that it projects. Re-presentation is harder to pin down than presentation but is none the less an integral part of a publication. The structure of this dissertation reflects these two elements and can, broadly, be divided into two parts. The first consists of theoretical and philosophical discussions of aspects relevant to re-

presentation. The second part, a discussion of presentation techniques and a practical review of reports, necessarily deals with more concrete issues of publication.

The dissertation opens with the idea that archaeologists have certain responsibilities to their subjects, which are, at least partially, discharged by the publication of their findings. Chapter 1 ends with some brief definitions of words from the title in order to establish the parameters within which I am working. Chapter 2 begins with a discussion of survey – this is wider ranging than the brief definition given in Chapter 1, but is by no means exhaustive. It too is intended to establish my parameters and to explore the standpoint from which I approached this work. Chapter 2 continues with a personal exploration of perception. Perception is a major contributor to re-presentation, whether for archaeologists projecting an image of their work in a publication or for readers conjuring their own images from that publication. The chapter closes with a section focussing more closely on re-presentation that considers some problems of communication and interpretation. Archaeologists try, in their publications, to re-present a four-dimensional subject in a two-dimensional medium – given the subjective nature of perception, one could be forgiven for wondering if a reader's re-presentation has any chance of even remotely resembling the archaeologist's original experience in the field.

Chapter 3 considers some of the practical pitfalls of publication and some of the ways in which numbers, words and pictures are used and abused. Finally, the increasing of digital media in presentation is briefly discussed. Chapter 4 presents a practical review of ten published survey reports from around the Mediterranean. Each is considered in the light of earlier discussions on presentation and re-presentation.

Chapter 5 considers the accessibility of data contained in archaeological reports and the possibility of comparing data sets and analyses produced by different projects. The chapter closes by briefly pondering the possibility of standardising methods of survey archaeology – something that is quickly dismissed as unworkable. Chapter 6 ends the dissertation by drawing together the arguments from previous chapters and in it I make some attempt to define my ideal vision of an archaeological survey report.

The aim of this dissertation is not to study the various methodologies of survey archaeology, although it was necessary to spend some time considering them in order to give the studied reports some context. Rather the intention was to take the finished product, the final outcome of an archaeological project, to see how it was put together and how it performed its intended role – to look at the make up and effectiveness of archaeological survey reports. Not all the studied reports are the final outcome of their project; I have included interim reports in the study, as I believe that the steps along the way are as important as the final goal. I hoped, through considering, in isolation, such ideas as perception, re-presentation and presentation before applying them to a selection of published reports to come to some conclusion about my ideals for the re-presentation of the subjects of archaeological surveys.

- Establish my ideas about regional survey.
- Consider ideas of perception, re-presentation and presentation in isolation.
- Consider a body of archaeological survey reports.
- Consider the make-up and effectiveness of archaeological survey reports.
- Establish my preferences for the publication of archaeological survey projects.

Subjectivity is a factor that arises again and again throughout this study; all of life is subjective, including the collection, recording and publication of archaeological data. This subjectivity does not invalidate the survey reports studied here but it should always be kept in mind when reading them – just as my own subjective treatment of the matter in hand should be kept in mind.

**Publication**

Archaeological survey produces a prodigious quantity of data, all of which must, if a project is to have any meaning at all, be communicated to the world outside the cloistered community of the project. Communication is an underrated activity in more fields than archaeology; I would hesitate to claim that it alone could cure the world's ills and archaeologists may not be aiming so high as the resolution of global conflict but good relationships with each other and the wider world are essential to their continuing activity. Archaeology consumes a good deal of time, energy and money for what outsiders often

consider to be little useful outcome. In the case of survey, which seldom produces material suitable for public display, perhaps the only tangible result of fieldwork will be the published report. This printed publication is for many their first point of contact with a survey project and its work; for most it is their only point of contact.

Excavating archaeologists in the United Kingdom have been explicitly aware of both the need to publish and the question of how to publish for at least 25 years; many of their ideas are evident in the progression from the Frere report (1975) through Cunliffe (1982) to Carver *et al* (1992). Clearly not everything they discuss or propose is directly applicable to us but many of the arguments are worth noting and adapting to the world of survey. Essentially they recognised the increasing volume of data being recovered by an increasing number of archaeological excavations applying rapidly improving recovery methods. They expressed concern over the mounting backlog of unpublished projects and emphasised the archaeologists' responsibility in this matter. They also recognised that the increasing volume of data necessitated a change in their approach to its publication; no longer could a project's entire findings be included in its final report. As a result they made recommendations for the division, structure and dissemination of an excavation's results. Carver (1992: 2.3.1) in particular recommended the adoption of the structure summarised in The Management of Archaeological Projects (MAP 2):

> The published report of an archaeological project should always contain the following information:
>
> i. the research objectives as expressed in the project design and the updated project design where applicable
> ii. circumstances and organisation of the work and the date at which it was undertaken
> iii. identity of the individuals/organisation by whom the work was undertaken
> iv. summary account of the results of the project
> v. summary of the contents of the project archive, where it is housed and how it may be consulted
>
> (English Heritage 1991: A7.1.1)

The advice continues with reference to writing styles and approaches (A7.2) and more practical elements of presentation and publication such as format, indexing and illustration (A7.3). Overall the argument favours well-balanced, well-presented data and arguments with adequate cross-referencing. All of it is advice that writers of any kind of report would do well to take into account, particularly the point that "readers should be able to find their way around the report without difficulty" (A7.2.1.vii).

Cunliffe's suggested structure (1982: 4.13) is discernable in the background but MAP 2 addresses style rather than strict format asking only that reports be "well balanced, logical and accessible" (English Heritage 1991: A7.2.1.iii). The findings and recommendations have, over the years, been widely implemented and now are largely a formal statement of common practice and, perhaps, common sense.

**Responsibility**

Also widely accepted in British excavation archaeology are the three levels of responsibility to be observed when recording and reporting: to the site; to the profession; to the public. In broad terms the first is covered by an excavation's archived record, containing every possible detail of recovered data. Responsibility to the profession is covered by the excavation report, a meaningful and manageable synthesis of the archive. The third level of responsibility represents a further distillation of information and can reach the public in many forms including guide-books, information boards and even postcards. Reporting becomes more subjective at each subsequent level. An archive will be as close to absolute objectivity as possible; its lists of data, photographs, drawings and artefacts will have a patina of subjectivity as a result of their selection – the initial choice of subject, the decision to draw or record them – but they will represent the most comprehensive surviving view of the excavated site. At the two subsequent levels a writer or editor chooses what information to include, what message is to be conveyed and tailors the style and terminology to the chosen readership.

The destruction of a site by excavators emphasises the first two levels of their responsibility; its subsequent reassembly and presentation to the public emphasises the third. 'Responsibility to subject' is perhaps a more appropriate term for the survey archaeologists' first level of responsibility given the size of survey areas and their potential to contain a number of sites as well as vast off-site areas between them. Their techniques may be less invasive, inflict less damage upon their subject and seldom result in the subject's public display, but the survey archaeologists' responsibilities to subject, profession and public are none the less onerous for that. Non-intrusive methods might diminish their responsibility to a subject but cannot excuse them of it altogether; destruction may not reach the levels achieved by excavation, but changes will have

occurred – an unknown site may now be known, sherds may have been removed from the surface or an excavation may have been inspired. All these will affect the survey area's future and the survey archaeologist must take responsibility for that. This responsibility, on- and off-site, is covered by the mass of information accumulated in a project's archive. The second level, responsibility to the profession, is the most easily equated to the excavator's and is manifested in the same way – in the project's final report. A survey archaeologist's responsibility to the public is the hardest to assess.

Survey seldom results in a tourist attraction without some intervening excavation. In such a situation the responsibility must pass on to the excavator. Perhaps the survey archaeologist's responsibility lies, not with the visitors who will follow, but with the inhabitants of the survey area – those whose lives will be disrupted, in however small degree, by the presence of survey archaeologists in their midst. This issue has been addressed by the Sydney Cyprus Survey Project (SCSP) with *In The Footsteps of The Ancients* (Given *et al.* forthcoming), a small book distributed to schools, museums and interested parties throughout the survey area and beyond. It outlines the ideas behind regional survey, describes the landscape and broadly describes the history of the region with particular reference to SCSP's findings.

Whilst inseparable from any collections of data or other publications pertaining to a project I am, here, largely concerned with reports that discharge the survey archaeologist's responsibility to the profession, whether in final or interim publications. Excavation might spawn lower level publications aimed at an interested public – the Batsford series produced by English Heritage for example – but this is rare in survey projects. Notable exceptions are *Beyond The Acropolis: A Rural Greek Past* (van Andel and Runnels 1987) and *Sandy Pylos: An Archaeological History from Nestor to Navarino* (Davis 1998). The second of these presents the Pylos Regional Archaeological Project (PRAP) to a general audience without reducing its subject to inanity. The book covers the project, the disciplines involved and their methodologies managing to give a good flavour of work in the field and how it ties in with the final picture of a project that is presented to the reading public. Also, importantly, the book places PRAP firmly in context against other work that has taken place in the area around Pylos, and beyond to the Mediterranean as a whole (Davis 1998: xxiii). It would be interesting to see if a project without something as spectacular as

Nestor's Palace at the centre of its survey area could produce a book with such a cohesive, attractive feel to it.

The lack of books at this level would seem to suggest either that the public are ignored, or that a single level of publication is intended to cater for all readers. If this is the case, is it realistic? What is the target readership of the report? Can it really hope to appeal to the public and still satisfy the demands of the professional?

Anyone approaching a project from the outside, be they fellow archaeologist or inquisitive outsider, is a consumer of the information – the archaeologists' audience – and as such deserve some consideration. We could perhaps divide the readership between archaeologists and others – an imprecise division that includes a large area of crossover. If we accept, regrettably, that little survey literature is targeted at the public, we can concentrate on the archaeologists. These could be identified as either survey archaeologists or non-survey archaeologists (excavators); and the survey archaeologists could further be divided between those involved with the project and those not involved with the project. Moving back toward the realm of levels we are left with four groups of readers all, bar one, expressed in negatives: non-archaeologists, non-survey archaeologists; not involved with the project; involved with the project. Each group of readers will require different amounts of information or help to understand the report. How many of them are catered for in the average survey report? It is to be hoped that survey archaeologists, whether or not they were involved with a project would be able to cope with a fair level of technical data, perhaps allowing us to merge them back into one group – survey archaeologists. Non-survey archaeologists on the other hand may be as baffled by the techniques, sampling or even the point of surveying as a non-archaeologist. Despite these varying levels of readership I think that we have to accept that the survey report is aimed squarely at the profession; non-surveying archaeologists and interested non-archaeologists are expected to make the effort to understand it. The narrow focus of survey publication may not be ideal but we also have to accept that outside the immediate vicinity of the project there is little demand for public level publication of survey work. Fields that were once surveyed do not have the same draw as an excavated palace.

Publication is the most important and sometimes, it seems, the least regarded element of any archaeological project, but without it a project is little more than a waste of everybody's time, energy and money. Not everyone will enjoy writing reports or collating a mass of collected data into a presentable and acceptable form, but it has to be done – publication is inevitable. Perhaps this inevitability and the prescribed, established formats of publication count against it. Publication formats can be seen as unchanging, unchangeable and adequate and so in no need of attention beyond a reluctant compliance with expectations. An alternative view would be that they are often impenetrable, unintuitive, hide-bound by outmoded methods and ignoring developments in technique and media that could transform them to the same degree that regional survey has changed ideas within archaeology itself. There is no question that we must publish, but perhaps we need to look more closely at how we do it and why we do it in that way.

**Inside a report**

The mere fact of publication cannot, alone, be seen to discharge an archaeologist's responsibility to the profession; the author is duty bound to be concerned with the content, structure and format of a report too. The presentation of a project is covered in more detail in Chapters 3 and 4; here I just want to introduce some ideas. Even without committees and reports such as Frere's (1975) the content of survey reports is fairly standard; we can expect a report to include a synthesis and interpretation of a project's findings accompanied by a suitable quantity of data. The structure of a report is closely bound up with the content; it is the arrangement of the content and again tends to follow an established pattern - a logical progression through the content from aims and objectives to methods to results and finally to interpretations and conclusions. This is all fairly self-evident, logical, widely applied and largely free from subjectivity, although even at this apparently mechanical level the situation is open to personal choice – what, for example, is a suitable quantity of supporting data? Format can be seen as a finer level of structure and as such far more prone to personal preferences in the choice of page layouts, font styles, style of language and so on.

From the layout of text on the page to the colours or weight of line used in a diagram the visual format of a report will attract or repel the eye and so the interest of the reader before they even begin to study the style of language used. Columns, for example, may make a page look more professional; the shorter lines are easier to scan, but long sentences,

common in academic writing, become hard to follow over several lines, particularly if extended by lengthy referencing. Seemingly trivial points perhaps to anyone who feels that the content is all, but awareness of ideas like this can add to the clarity of a work and so to the likelihood that readers will understand it. It does not matter how good the ideas are if nobody reads the work.

Education and entertainment are not mutually exclusive and both are part of the archaeologist's responsibility at all levels. Information is education and archaeological survey reports are essentially produced to inform outsiders of the world inside the survey project, the survey area and the area's past. Information can – should – entertain, if only at intellectual level. A report that presents its information in such a way that the reader understands the arguments intuitively and fully will entertain – and probably educate – more efficiently than one through which the reader has had to fight, with frequent recourse to the dictionary. Occasional reference to a dictionary can be stimulating, but its constant use soon becomes frustrating, and ultimately counter-productive (Frey 2000). We have to accept that archaeological survey reports will not appeal to everyone, but that should not stop us trying to make them as pleasant, informative and entertaining an experience as possible for those who do choose to read them.

**Media**

My main source of data for this study is conventionally published survey reports, both preliminary and final, which, on the whole, means printed matter; it seems that something tangible is still required to warrant the term publication. An increasing number of projects have a web presence, although generally these seem intended to run parallel, usually in a subordinate role, to any printed work – perhaps to duplicate it, perhaps only to redirect readers to the printed word. For the time being at least the academic need to publish will only be satisfied by the printed page. Published monographs and, more especially, archaeological journals go out to their readership – a web site may sit forever unvisited if no one can find it or muster the interest to log on. Assuming readers can be attracted to web sites they will find them far more flexible than the printed page. Just two advantages they have are the speed with which they can be updated as soon as new data or new interpretations are available – no need to be restricted by a journal's publication schedule – and they can carry almost limitless colour illustration at no extra cost. However this very

flexibility is a weakness, casting doubt on the stability and so integrity of the data. On-line journals such as Internet Archaeology (http://intarch.ac.uk) may be peer reviewed but the same cannot be said of the proliferation of project sites and whilst any doubt remains over the validity of internet publication archaeologists will be reluctant either to create or to use them.

The technology exists to change what we know as survey reports – the problem is that most of us do not understand it, or do not want to understand it, or simply cannot imagine why the manner of data presentation needs to change. I would suggest that we should embrace the technology and make it work for us; we need to use it to offer something that the printed page cannot and we need to find a way of attracting a readership to our web sites and convincing them of our academic standing once they are there.

## 1.2 Definitions

I have up to this point bandied words like presentation, survey and region with no really clear indication of what I mean by them. Survey literature – the discussions in Keller and Rupp (1983) and papers in Francovich *et al.* (2000) for example – reveals some very different ideas about some very basic words. It would be prudent therefore, before I go any further, to lay out my definitions of the words used in the title of this dissertation. What follows are limited discussions on complex topics. Some are expanded later in the dissertation but here I aim to lay out a concise definition to provide the basis of discussions that take place in this work. I am not seeking to stray from established ideas or to create anew, simply to establish parameters for myself and for the work in hand.

### 1.2.1 Mediterranean

- Gibraltar to The Levant
- Islands
- From the sea shore to the mountain tops

The Mediterranean can refer to a small area of seafront and sea in the south of France or to the vast body of water stretching east from the Pillars of Hercules. My study of landscape survey limits me to dry land, little of which has been mentioned in the preceding definitions. Even assuming that my studies will cover the land bordering the Mediterranean sea does not fully encompass my subject; one must add to the myriad little seas formed to the east where the Mediterranean is split by peninsulas: the Ligurian, Tyrrhenian, Adriatic, Ionian and Aegean seas. These seas, then, give a centre around which to trace the land that I consider Mediterranean – but how far inland should I stray? The Mediterranean landscape is noted for its fertile plains backed by mountain ranges. The Mediterranean Sea – and all its contributing seas to the east – is all but ringed by mountains. The mountain ranges are an integral part of the landscape and it can be difficult to decide where the Mediterranean ends and the interior begins. Nothing as crude as a line along the highest point of the mountains quite works, but the watershed is a commonly recognised geographical division and will suffice here. So, for the purposes of this piece of work, the Mediterranean is all the land, between the seashore and the top of the encircling mountain ranges, which borders on or is surrounded by the body of water that stretches from Gibraltar in the west to The Levant in the east. This is a simplistic, essentially physical definition of the Mediterranean,

but both this and other kinds of definition – social, political, economic and so on – are discussed in detail in *The Mediterranean and the Mediterranean World in the Age of Philip II* (Braudel 1972).


**Figure 1. The Mediterranean**

### 1.2.2 Survey

- Study of an area through surface evidence

Survey is an archaeological technique every bit as capable of producing useful data sets as excavation – albeit of a very different nature. Too often excavators equate survey with the occasional bouts of field walking or topographical work they indulge in around an excavation. This is not to say that their field walking and mapping are not survey, but survey as considered here is so much more. It is a self-contained activity, conceived of and executed as an end in itself and not simply as a precursor or accompaniment to excavation. Although it is not unusual for a regional survey to instigate some kind of excavation – whether to confirm surface evidence or establish a pottery chronology (Keller and Rupp 1983: 34-35) or as an independent project as Politiko *Phorades* grew out of SCSP (Given *et al.* 1999: 30; Knapp *et al.* 1998a; 1998b; 1999) – survey generally restricts itself to the study of surface material. This study can encompass subjects ranging from potsherds to buildings to the geomorphology and botany of a region but it is all quantified and recorded in a systematic manner. A more detailed treatment of survey appears in Chapter 2 and wider ranging discussions in Keller and Rupp (1983: 17-30) and Francovich *et al.* (2000).

### 1.2.3 Regional Survey

- Study of material culture within the context of a landscape

Regional survey takes a holistic view of landscapes, studying elements such as contrasts between urban and rural settlement, industrial and agricultural relationships and social hierarchies. Given a wider study area than most excavation and in most cases a diachronic brief that includes all periods, regional survey is able to detect major trends of change affecting studied elements across the subject area (Given and Knapp forthcoming: 12). It studies the archaeology but endeavours to do so within as wide a context as possible; against its historical, geological, social and contemporary backgrounds. A regional approach allows an off-site focus enabling the archaeologist to establish these wider contexts – to study the 'continuum over the landscape in terms of artifact density' (Keller and Rupp 1983: 27) and to investigate the evidence that lies between the small, dispersed areas of intense activity favoured by site-orientated archaeologists. The choice of regions for survey is a matter of much debate that at times betrays a tendency to take the site as a starting point, even amongst survey archaeologists (Keller and Rupp 1983: 21-22). Even if the landscape is a single continuous, infinitely variable entity across which archaeological evidence is spread in varying densities (Joffe 1993: 11) a survey region still needs boundaries, if only for bureaucratic reasons.

### 1.2.4 Archaeological Landscape

- The wider context within which the archaeology exists

The archaeological landscape cannot be marked out on a map – it goes beyond topography and, seen in different ways, collects terms such as 'cultural', 'natural', 'constructed', 'conceptual' and 'ideational' (Ashmore and Knapp 1999: 9-13). It is the arena within which the material culture recovered by archaeologists was used and abandoned or destroyed, but it is not a passive backdrop to human activity. It is the hills and valleys, woods and rivers, but more – it is these natural elements of the environment affected by and affecting the human inhabitants of a region. Just as archaeology is a multifaceted, wide-ranging discipline, so the landscape, when viewed by archaeologists becomes a multifaceted and wide-ranging entity as is apparent in Ashmore and Knapp (1999).

### 1.2.5 Presentation

- The elements and make up of a survey project's report

Presentation concerns the production of the results of detailed and often wide-ranging research for publication. In other words presentation is the mechanics behind a project's report whether as a monograph, a paper in a journal or an internet site. Whilst many aspects of publication are standardised each project must decide what goes into their report and how it should appear, from the format of pictures and diagrams, to the layout of a page and the writing style adopted.

### 1.2.6 Re-presentation

- The final manifestation of a survey project's report

The archaeologist studies a subject, comes to certain conclusions about it and then creates a report - the overall format of this report and the image of the surveyed area presented for public consumption by the author constitute the re-presentation. If a project is reduced to data-tables and graphs the report will be read differently to a report that describes a survey and its conclusions in a narrative form. The present in which the project takes place and the activities of the archaeologist are as important to this picture as the evidence from the past in as much as they expound the project's methodology and give the reader insight into any contemporary biases on the picture of the past.

## 1.3 Summary

This, then, is not a dissertation about how to survey, although some discussion of methodology will be inevitable; nor is it a study of the results of a selection of surveys in the Mediterranean, although, again inevitably, it will be impossible to avoid some consideration of what has been found; nor is it a review of the current literature, although published reports are my main focus of study. Finally, I am not attempting to combine all, or even a major selection of, results to build a pan-Mediterranean picture derived from survey. Methodologies and findings are so diverse that it simply is not possible to group all surveys in the same frame without a considerable level of further interpretation. Each represents a picture, developed in unique circumstances, of a very small piece of time and space. Finding some way of approaching all these different types of survey and finding some way of comparing them is one of my main concerns. A report communicates an entire project and its findings to the world outside the project. I have selected a group of published reports representing a broad geographical and methodological spectrum and intend to see how well they, and by extension the other reports, serve the responsibility of archaeologists to communicate with their profession. The pictures created by the reports will be affected by the manner of their presentation, and different presentations will be more or less effective. So first we must see how things are presented, then how effective they are and then see if we can compare them.

# 2 Theory and Methodology

In the first section of this chapter I expand upon my definition of regional survey. It is a complex archaeological technique and demands wider discussion than I gave it in Chapter 1. The following section is an exploration of perceptions of time and space. From archaeologists' perception of the landscape they are working in, to their perception of archaeological material on the ground, there is no escaping the subjective nature of regional survey. The third section of this chapter deals with issues of communication and re-presentation in archaeological survey reports, in which survey results and a picture of the landscape perceived by the archaeologist are set forth. The final section turns to physical aspects of a published report; the way in which data are presented on the page. Without the clear presentation of information, re-presentation becomes difficult and perceptions of the surveyed landscape are likely to be skewed. If readers are unable to create their own perceptions of a landscape from the published report then the survey will, to all intents and purposes, have been in vain.

## 2.1 Methodology – Further thoughts on survey

- What is Survey?
- Interdisciplinary approaches
- Focus

Survey is a complex topic awash with terminology and ideas, both conflicting and complementary. The paragraph devoted to it (1.2.2) is by no means sufficient and some attempt will be made to address those earlier shortcomings here. I am not trying to redefine survey or impose a new set of terminology – any such effort would be wasted – nor do I simply want to rehearse well-worn discussions about the strengths and weaknesses of survey as a research technique. Rather I want to outline my understanding of the basics of survey, introduce some expressions that I find useful when thinking about it and briefly explore my impressions of survey as a research technique. I hope that this will illuminate my approach to the reports studied in Chapter 4. Such is the variety of techniques and approaches that survey means different things to different people; for the sake of convenience I would posit a grouping for these disparate ideas and opinions.

**Intentions**

Site Location: This is more than an aimless search for sites to excavate – such an activity might deserve the somewhat pejorative term 'site hunting.' Site location refers to a survey that records new sites, possibly relocates previously known sites and perhaps maps discovered sites individually in some detail. The overall view is that the site is the important element and the landscape is little more than the spaces in between; plotting sites on a map remains a prime objective.

Site Expansion: By surveying a relatively small area surrounding a site the wider context can be established for it. Often used on excavations to confirm ideas extracted from the part exposed or to investigate the possibility of the further extent of the site.

Regional Study: Taking a holistic view of a piece of landscape. By studying as much of a landscape as possible in as many ways as possible, incorporating other, associated disciplines with archaeological survey, a richer picture can be built up, dealing with major trends in an area rather than the specifics of a single site. Such landscape studies have a scope broad enough to incorporate both site location and site expansion, should the necessity arise.

Site expansion has a very local scope – even more limited than the few kilometres of a site catchment analysis (Renfrew and Bahn 1996: 242-243). The archaeologist stands on a site and looks out toward the immediate landscape, considering the relationship between the two. This makes it less relevant to the study in hand than site location and regional studies where the viewpoint is quite different. Wanting to range more widely across the landscape and, particularly in the case of regional study, delve deeper into it, the archaeologist stands outside, looking in to view the landscape as a whole. Regional studies most closely resemble the accepted ideal of regional survey (1.2.3), but a methodical approach to site location survey can produce far more than a catalogue of sites worth excavating. Clearly the archaeologist's attitude or approach will affect the type of data collected and their subsequent interpretation; an excavator may see no more than a list of potential digs in the

same information that reveals to a surveyor the distribution of settlements through time. This would suggest that the collection and interpretation of information are quite separate, that no matter how data were collected they can be viewed with an on- or off-site bias. This may be partly true, but data collected with an on-site focus will, with their exclusive range, be less amenable to off-site interpretations than *vice versa*. I am not suggesting that regional studies, with their flexible off-site bias, are the best or only way to survey a landscape. It is, once again, a case of choosing the right tool for the job; whichever of the broad groups is adopted by a survey it must be the one best suited to answering the project's research questions.

**Attributes**

Three attributes of survey data worth considering are quality, width and depth; each is a measure of the effect of the approaches taken by surveyors upon the data they collect. If width is associated with the physical extent of the study on the ground – the size of survey area - then quality is associated with how closely the surveyors study the ground. The quality of data will be affected by such criteria as sampling methodology and the breadth of periods studied. Broadly speaking intensive survey is strong on quality, extensive survey on width. Depth is closely associated with the quality of the data; it is an indication of how the ground is looked at – the number of disciplines feeding data into an interpretation. A survey gathering solely archaeological data would produce a shallower data set than one also involving anthropologists, geomorphologists, architects and so on. So an interdisciplinary intensive survey would produce a picture of greater quality, with greater depth but of a smaller region than that likely to be covered by an extensive survey (Keller and Rupp 1983: 33-39; Mattingly 2000: 6-9). Field procedure and survey methods provide the link between research problems and the form of the data with which they can be approached (Cherry *et al.* 1991: 3).

**Approaches**

Site location, site positioning and landscape study are blanket terms that suggest the overall intention of a project. The approaches employed by each cannot be conveniently listed to provide a simple method of identification. Each project incorporates those best suited to maximising the attributes of its data in pursuit of its goals. Most eventualities are covered by three opposing pairs of approaches: casual/methodical; on-site/off-site;

extensive/intensive. Each moment of a survey can be identified as belonging to one or more of these categories.

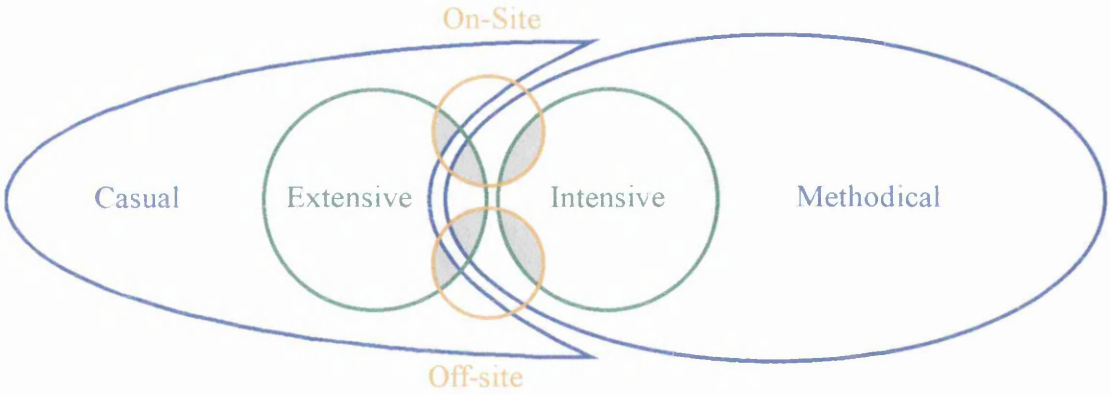



**Figure 2. Approaches to Survey**

There is no overlap within the opposing pairs, but different pairs can, indeed must, be used together on a project. Practical approaches to survey – the shaded areas in the figure – are represented wherever three elements intersect. Some of these combinations are used more than others.

The casual group is the only one that does not overlap with both groups from the other two pairs; intensive survey, by its very nature, cannot be conducted casually. A single survey can be placed anywhere on this diagram but survey projects, incorporating so many methods, inhabit several overlapping areas on the diagram, rather than a single point.

Casual, opportunistic, elements are inevitable on any project unless teams are transported to and from the intensive survey areas blindfolded; an unavoidable part of the archaeologist's make up is to perform casual, extensive, off-site survey at all times, wherever they are. It is, at its most basic, just noticing things. Mortimer Wheeler (1955: 143-151) recounts seeing ruins in North Africa between 18 and 23 January 1943 on a bearing of 309 degrees from Bir Dufan to Tripoli, a distance of 100 miles as the crow flies. Whether he made more detailed notes than those presented in his memoirs I do not know but we do have the results of a casual, extensive, on-site survey, which could, although at this remove it is unlikely, provide the germ for further work. It is how casual data are used, what weight is placed upon them, that matters. Something of interest seen and noted is not the basis for detailed

interpretation. However, if the survey moves from casual to methodical the data collected begin to gain context, credibility and value to the interpreter.

On- and off-site indicate the locus of focus rather than, necessarily, where all the survey takes place. On-site survey may concentrate on sites but, as with site expansion, may well stray beyond their boundaries to place them in context (Mattingly 2000:6). Equally, off-site survey archaeologists do not ignore sites just because their focus is on the landscape; they simply regard them as part of the regional whole, aware of the landscape continuing between sites. Herein lies a methodological problem – if a site is surveyed in the same way as the area all around it, there is a possibility that evidence will be missed. On the other hand if the site is treated differently and surveyed more intensively then, whilst the data will not be missed, they will not be comparable with those collected from the surrounding area.

There seems to be a general agreement on the nature of extensive survey, which is often seen as a reconnaissance stage of any project. Intensive survey on the other hand seems to be redefined for each project that takes to the field (Mattingly 2000: 5). Methodology sections in most survey reports give the spacing of field walkers and survey divisions and the percentage of the ground that was thus covered. With this information readers can at least assess for themselves the level of survey that was carried out. One thing at least is certain – an intensive survey will give a richer, more representative picture, but of a smaller area of a region than extensive survey (Fentress 2000: 44, 50-51).

**Disciplines**

Each of the shaded sections representing a practical approach to survey could be further divided between single- and multi-disciplinary approaches. No matter how many disciplines are involved with a project, there is little benefit to their association

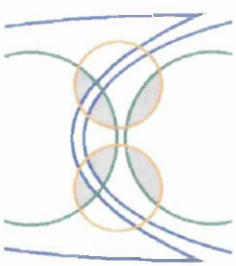


**Figure 3. Practical approaches to survey**

unless there is interaction between them and therefore interdisciplinary is a preferred term to multidisciplinary; much is made of the interdisciplinary nature of regional survey projects. But archaeology is such a multifaceted pursuit that it can be hard to tell when the transition to interdisciplinary has occurred. Working on the Troodos Archaeological Survey Project (TASP), for example, there are prehistoric, classical, and historical archaeologists, some of whom specialise in pottery, lithics or archaeometallurgy; a range of specialisations that ensure considerable depth in the data collected, but all coming from a single discipline – archaeology. Amongst the other disciplines embraced by TASP are geomorphology, geobotany, remote sensing, geology and sociology (Given *et al.* 2000).

Archive studies and bibliographic research precede fieldwork on most projects – is this history or archaeology? The differentiation may not be important; whether by an archaeologist or an archivist such research is consciously done in preparation for an archaeological project. The project may still be considered solely archaeological. The use of statistics is a slightly different case. Unlike history its borders with archaeology are not blurred – the two could never be confused and yet statistics are increasingly used by survey projects to interpret artefact distributions. Statistical manipulation adds to the data's usefulness – but to their quality rather than depth. This suggests that statistics is just one of the many techniques used by archaeologists and so its application does not make a project multidisciplinary.

It is with the introduction and integration of specialists applying skills quite different from archaeology that projects claim and are seen as having interdisciplinary status. The application of geomorphology, botany, anthropology and architectural studies to a region will increase the depth of collected data significantly. At first glance some of these disciplines have little to connect them with archaeology, but most have a bearing upon the landscape of which the archaeology is a part and so are relevant to the archaeologist. Archaeologists unconsciously used some of them in the past, and indeed some continue to do so – in Albacete they 'noted the location of hilltops and promontories with platforms suitable for occupation' (Gilman *et al.* 1997: 38). This hardly qualifies as geomorphology but by looking at the whole and selecting places by geological feature they successfully located Bronze Age sites. On TASP geomorphologists advise the archaeologists in their choice of survey units – there is little point, for example, in surveying fields whose topsoil

has been imported from beyond the survey area. The conscious inclusion of other disciplines in an increasing number of projects speaks for a growing acceptance of their relevance to the landscape's human past. Once the connection has been made, it is hard to imagine carrying out survey without at least an awareness of them and, preferably, the involvement of relevant specialists.

**Sites**

Whatever approaches are employed by a survey one of the most important considerations must be the area selected for survey. The spatial focus of a project, tied to the width of the data, is perhaps one of the earliest factors to be decided. Whether that focus is on-site or off-site it would be useful to consider, briefly, the nature of sites. The site definition debate is a long and complicated one (Keller and Rupp 1983: 26-30; Mattingly 2000: 6-7), which cannot realistically be resolved by an 'industry standard' definition. The most workable situation is for archaeologists to define, with due regard for their survey methodologies, what they think is a site, to apply that definition throughout their project and to include any definition or discussion in the final report and any other relevant publication as do Alcock *et al.* (1994: 159). This project-specific approach gives rise to terms like *places of special interest* (POSI) (Cherry *et al.* 1991: 22; Given and Knapp forthcoming: 43-44). Terms such as POSI are unsettling to those that cling to the idea of a *site* as some kind of concrete entity that can never change and the idea that the status of a site might be reduced in the light of later investigation (Cherry *et al.* 1991: 22) is anathema to them. To them a site is a building or the remains of settlements; the term seems to imply the presence of material below the surface. POSI holds no such implication – it is a broad definition incorporating, if necessary, lithic scatters or areas of higher density pottery remains as well as the buildings and bridges. The need for sites seems to be a legacy of excavation – without them many archaeologists, survey archaeologists amongst them, feel unfulfilled. They have an inherent need to mark out their territory, dig it up and discover something. Unable to deal with the range of possibilities encompassed by POSI many of those baffled by it become scornful or mocking; perhaps a different term would suit them: *features of archaeological distinction* (FOADs, or perhaps FADs). It contains more terms that are familiar to archaeologists, which could recommend it, but equally could possibly be a weakness. Also *place* seems somehow less restrictive than *feature* – so perhaps, in response to the mocking cynic, the survey archaeologist should offer POAD rather than FOAD.

The flexibility of POSI is representative of the flexibility found in regional studies, which take a more relaxed attitude to the definition of sites. Gregory (in Keller and Rupp 1983: 27) urges the abandonment of the concept of site in preference to a single view of the landscape continuum and studying the relative artefact densities within it. Similarly Ammerman (in Keller and Rupp 1983: 28) promotes a move away from absolute terms for artefact density. He advocates identifying nodes in the background continuum and defining sites within the context of the research problem – dealing with them as they arise. Cherry (1983: 398) wrote that such "siteless" survey had had little impact upon the Mediterranean. In the intervening years it has been growing in strength and gaining acceptability, but the unease that having nothing concrete or quantifiable at the centre of a project – that atavistic need for sites – is hard to lose.

Whatever it chooses to call them a project cannot ignore sites – or POSIs or concentrations or scatters or nodes – they are in and of the landscape. But if the concept of site is abandoned and the landscape treated as a continuum of archaeological evidence between peaks of activity, and if both small elements and peaks within the continuum are studied, then perhaps the important definition becomes one of landscape rather than of site.

**Spatial Focus**

The landscape is all around each of us at all times – it shifts in shape and size and focus as we move through it in time and space. Seen like this, the landscape of a single person passing through life would be difficult to map. The archaeological landscape – an arena of human activity encompassing an unknown number of people moving through their lives from the early prehistoric to the present – is infinitely more difficult to map. It is impossible to ignore time, which adds a fourth to the three physical dimensions more apparent in the landscape. A definitive answer, the ultimate map, must be impossible to draw, but archaeologists, no matter how much they might like to, do not generally deal in definitive answers.

A survey cannot hope to map an archaeological landscape at any but the most basic level – it cannot even hope to enclose an entire archaeological landscape within its survey area. Restricting ourselves to the physical dimension it is still difficult to define the landscape to

be surveyed. The best one can hope for is to define a survey area within a set of limits affected by, amongst others, practical, spatial, geomorphological, social and historical considerations. A survey area will always be a compromise – a sample. A regional survey project will in great measure be defined by its survey area and yet, it seems, at the heart of every project is a compromise in which the archaeologist has made most of the concessions.

**Temporal Focus**

If spatial focus and the associated discussions relate to the width of data collected on a survey then the periods studied by the project will affect the data's depth. It is hard to imagine a regional survey that limits itself to a single period but there are those that do and a project that studies the sites of a particular type limits itself to the period in which those sites were in use. ULVS (Barker 1996: xvii) concentrated on *gsur* which meant that the main temporal focus of the project was on the Romano-Libyan period, with a little earlier, prehistoric evidence. In this case the subject dictated the focus, but in Albacete (Gilman *et al.* 1997: 35) the intention was to study Bronze Age settlements. They did find some Iron Age, and later, sites during intensive off-site surveying but there is no more than a mention of these (Gilman *et al.* 1997: 38) in the preliminary report. A limited period survey would fail in its responsibility to the landscape if it did not even make this passing reference to data outside its remit, thus acknowledging its existence and availability for study. Any project that did not even record data outside its focus period would be failing even worse and presenting data that would not simply be out of context but stripped of its context.

Re-surveying would not supply the missing context – data collected at different times have different contexts. The landscape would have changed albeit not necessarily very much in the interim. The non-destructive tag so proudly worn by surveyors must be applied carefully. At a very philosophical level there are those who believe we affect anything we look at, at a sub-atomic level, simply by turning our attention to it. Archaeologists can probably afford to pass that by, but just as water dripping from a tap will eventually wear through stone so our repeated glances, or more pertinently repeated surveys, will have an impact on the area surveyed. The landscape will be disturbed, the material record reduced. Pottery sherds picked up from a ploughed field will have little impact but if a lithic scatter is removed from an undisturbed surface the record at that point will have been completely

destroyed. This is as nothing when compared to the destruction of excavation but it is worth remembering.

To survey a field for a single period is to leave an imbalance in the material record, which will skew any subsequent work; excavators can re-dig old sites and see their predecessors' work but the re-surveyor does not have that advantage. Cherry (1983: 385) asserts that "good surveys are diachronic." Certainly a multi-period survey produces deeper, richer data. By surveying for a single period, no matter how complete the survey is for that period, the final picture can be no more than a thin slice through the four dimensional landscape. No one can be blamed for finding evidence from one period only but projects should perhaps be discouraged from looking for one period only – particularly on intensive survey.

**Survey and Excavation**

I have done no more than mention excavation in passing and whilst there is always a possibility of excavation resulting from survey projects this, ideally, would not be amongst the primary aims of a regional study. There is a possibility that the expectation of excavation following a survey might detract from the attention paid to the surveying itself and lead to the attitude that survey serves only to locate suitable excavation sites. In a regional study this is not the case and a project will always benefit if it is planned and executed as a discrete entity and not as a precursor to possible excavation. Of course the unexpected can always happen and a regional study can identify a site important enough to consider excavation, as was the case with Politiko *Phorades*. The site was identified by SCSP (Given and Knapp forthcoming: App.1), but excavation was not part of the project design and work at *Phorades* was carried out by a completely different team, the only crossover being at directorial level (Knapp *et al.* 1998: 247n).

It would be foolish to try to narrow down the multitude of survey methods into a single ideal method, but the richest picture of all will come from a diachronic, inter-disciplinary project employing methodical, intensive survey methods with no particular intention to excavate. The greatest attribute for any project to possess is the self-awareness and flexibility to adapt to changing circumstances as they arise.

## 2.2 Theory - Perception

- Time
- Space
- Landscapes

Perception is a knotty problem – we experience nothing without perception colouring it. Perception is that element of human awareness which makes absolute objectivity an impossible goal. Whilst it may be universally agreed that an orange is orange, we have no way of knowing that the colour one of us labels orange is perceived in the same way by another – though both know it as orange. This might appear to argue against absolutes, but on the contrary my point is that we all accept a certain colour as orange, however each of us might perceive it. Perception is a personal, internal, immeasurable thing that comes between each of us and the external world.

The five senses register stimuli and the mind records them. The basic registration of these stimuli can never be experienced; our sensory receptors – eye, ear, etc. – receive an input and convert it to a form useable by the mind. The mind then interprets the input with reference to an index of previous experiences and records it to increase the scope of the index for future comparison. All sight, sound, smell, taste or touch is perceived in comparison to everything the mind has ever received in the past. Any suggestion of a sixth sense could perhaps be attributed to the subconscious assessment of a situation; the mind drawing on its store of previous experience to produce a perception with no conscious input.

This opposition of mind and senses is just one manifestation of the eternal opposition of subjective and objective that plays a large part in this discussion of perception. Already I have favoured mind over brain; the brain, I feel, is the mechanical engine, the mind is the activity within it – the subjective operating within the objective; the software within the hardware perhaps. Similarly I have suggested that the senses register whilst the mind records; the senses are stimulated by a presence or an activity but the mind identifies, interprets and stores it in consultation with an archive of previous stimulations. Such black and white distinctions are useful for discussions but are less than satisfactory in practice; it

can be very difficult to accept the presence of something invisible or the interference of something that might compromise your objectivity.

The discussion so far has placed perception firmly in the subjective as does the Concise Oxford Dictionary (Fowler and Fowler 1964), which whilst noting the role of the senses, emphasises the importance of the mind. To prevent this discussion from becoming too diffuse it is worth remembering the context in which we are discussing perception: regional archaeological survey. This throws up two important areas that are worthy of individual attention: archaeology is concerned with time – we stand in the present and search for the past; archaeology, and perhaps regional survey especially so, is concerned with space – we stand in a landscape and search for evidence of those that stood there before us.

**Time**

Time is perhaps the broadest stage on which we can be aware of events taking place – it adds a fourth dimension to the three physical dimensions of space. Whilst height, breadth and depth might be more readily understood as dimensions they are static; they can contain a scene, a landscape or an artefact but without time there can be no action, nothing can change from one state to another. It might be suggested that without time we could not sense anything, and without sense there can be no perception. Without time, light, sound and all other stimuli would be stationary and never reach our sensory receptors – no time, no registration, no recording, no perception. If it is so fundamental to perception then what is our perception of time itself?

Thomas (1996: 33) discusses two views of time, Aristotle's and Augustine's. The Aristotelian 'time of the world' is an attribute of the external world against which humans carry on their daily lives. This time is noted by changes in the world and measured against the speed of those changes. Augustine's 'time of the soul' was less concerned with the quantification of time than with the personal perception of an individual's place in time. Augustine seemed to suggest that time is beyond human comprehension, encouraging a subject to look no further than an immediate sphere of experience – to live life as it happens and not to enquire too deeply as to how it happens. This somewhat narrow view of the world would be of little use to archaeologists who strive not only to understand the sphere of their own experience but also that of people and peoples long dead. Time extends

beyond the individual, it affects everyone and everything, making Aristotle's 'time of the world' a more useful concept. Braudel's (1972: 20-21) vision elaborates on Aristotle. No longer is time a single strand marching along in days and nights or cycles of the moon and sun; rather Braudel recognised different rhythms in time – distilled in the *longue durée, conjoncture* and *events*. Clearly if you recognise different rhythms in time it is a fool's errand to attempt to impose an immutable hierarchy upon them, but without some terms of reference discussion becomes impossible and Braudel's criteria serve the purpose admirably. Thomas (1996: 36) maintains that the *longue durée*, the environmental time strand, is the only meaningful context for considering archaeological evidence, the environment provides a stage on which humans act, their actions registering as archaeological traces. But archaeologists always want to get down to as small a level of time cycles as possible; to open the small windows that give views of individuals, such as the Alpine Ice Man (Hodder 1999: 137). Archaeologists do not want to say that ice sheets came and went, they would like to say that a villa was inundated by volcanic ash on 24 August A.D.79, without recourse to Pliny.

The idea that time is not quantifiable, that past, present and future are purely subjective (Thomas 1996: 33) is surely defeatist. Time in its entirety may well be beyond our comprehension – an infinite body divided between past and future (a mathematical uncertainty in itself, I think) with the past imperceptibly growing at the cost of the future. The present is the meeting of these two massive, shifting bodies – time stretches ahead and behind the constantly moving interface between past and future. Archaeologists have the benefit of a finite past; whilst new discoveries may push the advent of human beings further and further back they simply move the starting point of human time, they do not remove it altogether. The future is so large as to be effectively infinite. We know our allotted span will occupy an insignificant amount of the future and it does not in any case concern the archaeologist – yet.

The present, the imperceptible shift from future to past does have relevance for the archaeologist – whether to establish the stand point from which a subject is viewed or to recreate a subject's present – the present in which it existed in the past. To facilitate such discussion and images, the present is expanded to suit the occasion – it may be today or this minute or this Olympic games. Just as the answer to the question "Where are we?" in a

moving car can never be precise – indeed too much precision would be far from useful – so the present, and indeed all of time, is as prone to context as everything we deal with. It seems to me that perceptions of time require a digital view – there is a time when the present, past or future starts and there is a time when it stops, like on/off switches, the 1s and 0s of a computer. Yet, in truth time more closely resembles an analogue signal, constantly changing, smoothly from one state to the next in a continuous flow like the signals that flow through old electronic equipment.

**Space**

Space comprises those more familiar dimensions – length, breadth and depth measured in feet and inches, metres, cubits or any other system we choose to impose. This is a scientific perception of space as an unchanging nothing in which things happen (Tilley 1994: 8-9). This view, whilst apparently rational and materialist, is in fact irrational and idealist as it attempts to create a gap between observer and subject, something that is impossible (Tilley 1994: 12). However, imagination can allow an observer to envisage such a gap without losing touch with the world. Archimedes had far fewer points of reference than we do today and yet was able to remove himself completely from the world, to see himself at the far end of a lever with which he would move the earth. Tilley (1994: 10) distinguishes between space, which he says does not exist, and spaces, which are constantly formed and reformed in the light of previous spaces and established pasts. He is somewhat hobbled by this terminology and for the purposes of this section I shall adopt the more usual space, which Tilley says does not exist, and place, for surely it must be possible for Tilley's spaces to exist singly.

Place is perceived space – the space of record rather than the space of register; it is the egocentric space, centred on an individual (Campbell 1994: 10). Place is the setting for human behaviour and the creation of meanings; the cultural constructs that cannot exist without human presence (Tilley 1994: 11). To take this to imply that nothing exists outside place, however, is unacceptable. Something cannot be created out of nothing, and places are constructed. It seems to me that the space favoured by the processualists, the void in which events occur that Tilley (1994: 8) dismisses as idealistic, is the very arena in which place is brought into existence by human action or presence. Space is the vast ignored background to our lives – the everyday – observed, as it were, from the outside (Campbell

1996: 6). Tilley's argument betrays an archaeologist's obsession with sites – he describes ritual landscapes, focuses on holy mountains (Tilley 1994: 28) – special areas – just as some survey archaeologists who profess a regional bent still consider their work in relation to sites in the area (Keller and Rupp 1983: 31-34). There is a danger in this approach of ignoring the landscape in which sites stand, the areas between them – the space outside the places.

I see space all around me that can be measured without meaning beyond, perhaps, a consideration of why a certain measurement should have been taken. However if that space is looked at in detail, when assumptions and interpretations begin to be made – whether of hills or water, standing stones or pottery sherds – then subjective, humanised perception comes into play and place, Tilley's spaces, come into being.

**Neolithic Europe**

There has to be room in archaeological interpretation for the everyday as well as the purely symbolic; not everything can be measured empirically or treated practically but this should not damn such an approach as useless or unworthy of attention. Take for example the debate over *linearbandkeramic* (LBK) houses. A pattern can be discerned in the layout and alignment of many of these houses although nothing remains of them but post-holes and trenches – no living-floor that might indicate access or activity has been discovered (Bradley 1996: 247; Hodder 1984: 56).

Attention is often paid to the symbolic content of these constructions rather than to any practical considerations. Whilst it is entirely possible that the form and alignment came to be meaningful there seems no room for the suggestion that they might have started out as no more than the most efficient way to build a house and arrange a settlement. Humans are essentially practical beings and will build a house that works – having done so it is likely they will use the same methods until external circumstances such as a shift in location, scarcity of raw material or advancing technology prompts a change. It might be that over the years parts of the established design become imbued with meaning, as the innovation of engineering is rendered invisible by familiarity. Time and culture may have given social meaning to the attributes of the building that exist in the three physical dimensions, but that

meaning has not removed the physical dimensions, they are still there under the layers of interpretation.

The houses in a LBK settlement were often aligned along the same axis (Bradley 1996: 247). From a purely practical point of view this meant that more houses could be fitted into an area than if they were randomly placed. The alignment was east/west (Hodder 1984: 54) so that the rising sun shone onto the main entrance – if indeed the door was, as conventional wisdom has it, at the narrow east end. Through the day the sun progressed along the ridge of the roof before setting in the west beyond the closed end of the house; just as someone entered through the door and progressed along its length to the deepest, most enclosed part of the house (Hodder 1984: 63) – just as individuals are born, pass through life toward death, the far end, the setting sun. Alternatively a long narrow house might present one of its longer sides to the south to maximise the length of time during a day that the sun could shine on it and warm the interior.

Hodder (1984: 56) notes the tripartite division of the houses, but much discussion on this and many other topics, concentrates on a bipartite division of space and ideas. Despite convincing arguments to the contrary (Knapp and Meskell 1997: 183-187) humans are widely considered to be binary beings: left is pitted against right, male against female, production against consumption. Perhaps this is a sign of limitation, an inability of humans to escape their ties to the scientific world in which Sir Isaac Newton said that for every action there is an equal and opposite reaction - a fundamental binary block in the foundation of the physical universe. Yet in explanations of a wider, spiritual or religious universe created by the inhabitants of the physical universe, threes are important – the Christian Trinity and the three faces of the Celtic Earth Goddess are but two examples. This of course may then justify a symbolic approach to the construction of the LBK house – there are more trinities evident than the three main modules.

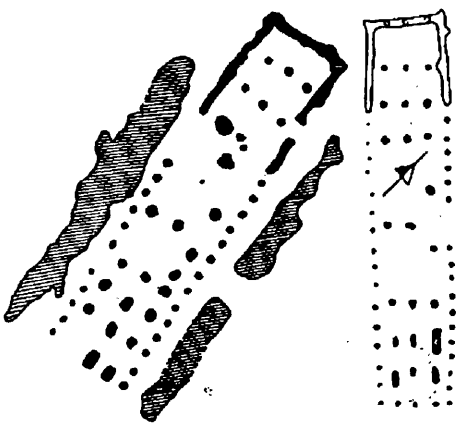


**Figure 4. LBK Longhouse floor plans (after Hodder 1984: 52, Fig. 9; 59, Fig. 12).**

There are three rows of internal posts in each of the two outer modules; these rows are made up from three posts each. The Y shape arrangement of posts dividing the centre module into three areas could be seen as the remnants of three rows of three posts. The centre module is a constant in LBK houses, it appears at times with neither or just one of the other two, so that at the very heart of this tripartite house is a tripartite area.

This diversion into Neolithic Europe is intended to argue a need to adopt an inclusive, dualistic perhaps, approach to our perception of space. It is not sufficient to state that all space is anthropogenic and that all attempts at prosaic interpretation are irrelevant. Thomas (1996: 83-85) takes strides in this direction in his discussion of geometric and significant space. If the world is seen in purely geometric terms then no place can be seen to have priority over another. Space only becomes meaningful by its involvement in human worlds, but those spaces are no different geometrically with or without a human presence.

**Conclusion**

When archaeologists study a landscape they perceive it through all the filters of experience that inundate a modern mind. So, the archaeologist studies a landscape and perceives what it contains today. Geomorphologists can give clear ideas of what a landscape once looked like and, taking these ideas into account, the archaeologist draws conclusions as to the character, population and use of the landscape in the past. And, from such conclusions, some archaeologists then begin to extrapolate how the landscape might have been perceived by its erstwhile inhabitants. Archaeologists choose an area for study because it interests them (Thomas 1996: 85) and in so doing they begin to build their perceptions of it before looking at it in any detail. An interesting, if rather foolhardy, project might be to select four coordinates at random to enclose an area for archaeological survey so that the archaeologists could come to it without, or with less, personal bias and preconceptions. It would take some organisation to cover enough of the globe to ensure complete randomness whilst being sufficiently controlled to avoid a study area in the Pacific Ocean or Antarctica.

It is the archaeologists' perceptions of a landscape that make up a project's re-presentation. This perception is built upon not just the experience of being in the landscape but also upon a project's archive. Much archived data will be the result of project members' perceptions of the landscape – a descriptive report is clearly a work of perception, but so too is the count of sherds from a survey unit. The raw data collected – whether it be lists of numbers, sherd densities, lithic widths, map references, slag weights or spot heights – are collected by human beings living in, as often as not, an alien environment and working with varying degrees of skill and efficiency. Field walkers who spend most of their time concentrating on the ground immediately in front of them rather than on the landscape in which they stand will have a very different perception of the area from a project director with a wandering brief or the pottery specialist whose days are spent in a room full of sherds. Each perception is valid and each, to varying degrees, will contribute to the re-presentation; as will the perceptions of geomorphologists, geobotanists and all the other specialists involved in an interdisciplinary project. For field walkers to collect pottery artefacts they must have some perception of what they are. It is rare for an artefact to be so alien as to be meaningless or culturally neutral to a specialist, but field walkers are seldom specialists and it is their perception of the material on the ground that is important at the collection stage. An artefact that has become culturally denuded is, in fact, unlikely to be recognised or collected (Thomas 1996: 61) – it is not perceived as an artefact. Highly developed collection strategies, statistical analysis and experimentation seek to compensate for lower, or less specialised, levels of recognition, but there is no escaping the fact that the final re-presentation of a landscape is based in large measure upon individual project members' perception of minutiae within it.

## 2.3 Theory – Re-presentation

- Communication
- Interpretation

**Introduction**

Re-presentation has been endowed with a hyphen to differentiate it from straightforward representation; having studied a subject – presented in its natural state – the archaeologist assembles a collection of findings, opinions and interpretations and re-presents it to the wider world. The amount of raw data included, the level of interpretation offered and the format in which it appears – the way in which the archaeologist chooses to assemble the image – all affect how the re-presentation appears and how it is received. To a great extent re-presentation is tied closely to the published work, as the image that the author has chosen to submit for scrutiny – it is the publication at rest. A publication represents the archaeologist's work – the time spent in the field, the collection, analysis and interpretation and the preparation of a report – but it re-presents the surveyed landscape.

A report is just one of many potential reports that could have come out of a project (Tilley 1989: 278) but, once published, it becomes the constant factor in any encounter from which a second level of re-presentation results. The reader enters into a dialogue with the report, the depth of which will be determined by the reader's experience or knowledge of archaeology and the subject under scrutiny in particular. If the reader happens also to be the writer then the resulting re-presentation is enriched with all the information and experience accumulated during the lifetime of the project. A less informed reader, perhaps one new to archaeology, might create a re-presentation very similar to the author's published ideas, or they might bring to the discussion a set of criteria, from outwith the discipline, that the writer had never considered and so create an altogether unexpected re-presentation. This secondary stage of re-presentation is the result of a reader's perception of a writer's perception of a subject and, given the mercurial nature of perception, is an entirely subjective matter. So, it is on the first stage, the author's re-presentation that I will concentrate here.

Whilst recognising that other media are used in the re-presentation of archaeological subjects I use the following terms in my generalised discussion: publication, book, page and paper.

**Communication**

The archaeologist builds an image of a landscape in four dimensions since survey produces information with regard to time as well as to the three physical dimensions. A publication, the re-presentation of a landscape, is a two dimensional encoding of the archaeologist's work, reduced to occupy the flatland of the printed page (Tufte 1990: 12). Given this limitation and the impossibility of including everything in a single publication the author uses a combination of presentation techniques and data selection to create the desired re-presentation. The author imagines an idea as a whole and breaks it down into a linear stream of words, which is later reconstructed by readers (De Leeuw and De Leeuw 1965: 12) to create a picture of the subject for themselves. In archaeology, as often as not, this stream of words is interspersed with pictures and tables – other presentation techniques – which, whilst they divert the linear flow momentarily are still essentially part of it, tied as they are to the two dimensional march from front cover to back. Admittedly books such as archaeological reports are seldom read from cover to cover, but their layout is linear and any single part of them that is read does have to be read in a linear manner.

A non-linear, random approach to a text could be criticised as disorganised – it is certainly an inappropriate way to follow an extended, reasoned argument. However, it is suitable for readers selecting pieces of information for their own argument or re-presentation. When following random paths such as this in a print volume, it is always possible to come across an unexpected, but relevant detail in a way that is unlikely to happen when following hypertext links from one place on a web site to another.

Whilst the communication may be linear there are many ways of perceiving the whole – *the big picture* and *the whole story* perhaps represent two extremes. *The big picture* tends to suggest an immediate image of the subject, something that is not possible until the re-presentation has been read. The all-encompassing immediacy of the phrase may also suggest an overview – a surface treatment of the subject. But pictures occupy a more primal level of communication than do words. The picture of what surrounded our distant

ancestors was apparent long before they made any attempt to communicate it to their fellows. The words they used were an attempt to recreate what they had seen or experienced in the minds of others – to make a picture for them. In much the same way, when writing a survey report, an archaeologist attempts to recreate a picture of experienced material and events in the mind of the reader. The complexity of a survey report is a formidable barrier to our perception of it as a picture. We are used to seeing a picture in its entirety, although we seldom study it like that; rather we concentrate on parts of it in turn before stepping back to view the whole. So whilst we may study a report and a picture in a similar manner it can be difficult to view the whole of a report in the same way that is possible when we step back from a picture.

Archaeological survey reports are compiled in a fairly standard way within the strictures of academic and technical writing and the picture created has both the actuality of a photograph and the creative tones of a painting. The methodical sampling and empirical recording techniques employed to report a clear, credible picture of a surveyed area suggest a camera dispassionately recording the light that briefly passes through its lens. The camera quotes what it sees, it does not translate or interpret it (Berger and Mohr 1982: 96). A report cannot be said to be so dispassionate; despite the best of intentions, the human element of survey recording means it interprets rather than quotes the surface evidence. The broad sweep of survey, its investigation of many periods and its interpretations of those empirical records, are perhaps more comparable with the long gestation of painting. The photograph in this comparison has much in common with Berger's juxtaposition of the working drawing to a painting (Berger 1960: 23-25) and many survey reports explicitly display the process by which the final picture was created in their discussions of strategy and methodology; the pencil lines show through the paint.

*The whole story* gives an impression of completeness – it also suggests the linear composition, the logical progression that underlies the established structure of archaeological survey reports. Interpretation, narrative and, perhaps even more so, story, all suggest an uncertainty of the absolute truth – something that we are all aware of and accept in any archaeological report. At times this uncertainty is capitalised upon and archaeologists include fictional interludes in their reports – *Strangers In The Landscape* (Given and Knapp forthcoming: 1-8) for example. Edmonds' (1999: x) fictional passages

are not intended to recreate the past, but rather, he hopes, to give us another view in of the past that we study. I, on the whole, am uncomfortable with these elements in a report. Whilst fiction might allow the reader the freedom to interpret and create their own experience, the overt fiction can undermine the validity of any information they might contain extract from such this kind of writing. At the same time, the archaeologist's desire to include as much verifiable fact as possible tends to flatten the enjoyment of the fiction. Just as a historical novel suffers when the author insists on including every last scrap of their research, whether the story needs it or not – *Saigon* (Grey, 1983) is just one example.

In fiction the archaeologist's interpretation has been taken to the highest degree – the evidence has been assembled and a scenario developed that is re-presented to the readership as the only possible interpretation. More useful is the text that allows readers scope to make their own decisions and interpretations, to build up their own images of the report's subject. A writeable text – one that encourages a reader to dismantle it and rearrange the parts, to follow their own path through it – albeit not necessarily quite as open to interpretation as envisioned by Eagleton (1983: 137-138) allows readers to focus on small parts of it before stepping back to assess *the big picture*.

**Subjects**

No two survey reports seek to convey an identical image, for the obvious reason that no two survey reports have an identical subject. Where the same subject is described in two publications they are unlikely to be intended for the same purpose or readership and so will be very different communications. A preliminary or final report, a popular or academic work may all have the same subject but the image portrayed – the re-presentation – will change for each. Despite these obvious differences there are some general points to note about survey reports and their intended purpose – what, for example, are they seeking to re-present?

Archaeology is concerned with the past. It follows then, that survey reports seek to re-present the past in some way. However, most reports include information that sets their findings in context – details of the project, sampling methods, living conditions and so on. Although these details are treated as the present and are in no way as distant as the archaeologist's subject, they too are in the past. When Cherry (1983: 385) suggested that

good surveys are diachronic he said that everything should be recorded from earliest prehistory to recent times. Recent times are hard to define – on Keos Cherry *et al.* (1991: 27) opted for 'the last few decades' – and it is sometimes difficult to identify when surface remains become nothing more than a rubbish tip. This is a debate that does not need rehearsing here, for our purposes the subject of the survey is in the past, whilst the survey itself is of the present.

The present tends to be treated as immutable – the datum point from which all measurements are taken – but it is absurd to assume we can stop the world to study it (Holy and Stuchlik 1983: 108). No landscape is static and the longer a survey project lasts the more its subject will change around it; survey areas can change from day to day, as field walkers move from unit to unit – crops are harvested, fields ploughed and roads cut between towns and villages. Archaeologists are aware of these problems – Ammerman, for example, has studied changing land use at Acconia, concluding that it affects ground visibility and by extension the recovery of archaeological evidence. But he offers no easy solution to the problem; no formula to compensate for a constantly changing subject (Ammerman 1995: 91).

If the past is re-presented in a survey report, is it *the past* or *a past*? To reproduce or recreate *the past* 'as it really was' is surely impossible; the past is dead (Edmonds 1999: x) and, as numerous fictional examples have shown, resurrection of the dead is an unsatisfactory substitute for life – ultimately incomplete and, in most cases, disastrous. Interpretation and analysis require at least an element of subjectivity so archaeologists must be content with recording *a past* – a reading of the evidence; the assembled data seen through their eyes; a memory of *the past*. No matter how tightly bound by convention and the evidence recovered an archaeologist's re-presentation will always be an act of imagination (Edmonds 1999: x).

**Interpretation**

Interpretation is a part of the human condition. It is not a flaw in objectivity to be hidden or denied, but an inevitability to be acknowledged and embraced. It happens in different ways and at different stages of the archaeological process and these different approaches release different kinds of data from the ground (Andrews *et al.* 2000: 530).

**Figure 5. Drawing by CEM (Tufte 1983: 56)**

Once those data are released, the different treatment and further interpretations they receive, from archaeologists and specialists involved with a project, lead, as Tilley (1989: 278) says, to one of the innumerable possible reports that project could have produced. Earlier I seemed to suggest that communication is a one-way process – from author to reader, through the medium of publication. This over simplifies the case – any re-presentation is a joint venture arising out of a dialogue between the reader and the writer with the book as go-between. The archaeologist, in dialogue with the subject, creates a re-presentation of the subject, freezing selected data and interpretations in the publication. The reader, in dialogue with the publication, then creates the second stage re-presentation – just one of the innumerable possible re-presentations that could have been produced from that report.

The actual outcome and intended outcome of a re-presentation – the two stages of re-presentation – are unlikely ever to correspond exactly. The author will always have a greater knowledge of the subject than a reader and so create a more faithful re-presentation. This would seem to suggest that the author's re-presentation should be open to as little interpretation as possible, so that readers will all take the same message or image from it. This in turn would suggest that an author should interpret a subject to such an extent that there is no data left for the reader to interpret. In such a situation the reader is left with the choice either to accept the author's image at face value or to delve behind it, to dismantle it and create another, more personally acceptable interpretation of the subject. This choice will depend upon the level of the reader's input into the dialogue – their level of knowledge and experience. It is to be hoped that no archaeological survey report would ever adopt this approach, but rather that an author would present an interpretation supported by the data

and processes which led to it. The reader then has open access to both interpretation and data and the tacit invitation to reinterpret and, ceasing to be a passive consumer, becomes a producer in their own right (Eagleton 1983: 137). It is an illusion that all a writer believes and thinks of a subject can be present in a written description (Eagleton 1983: 130); re-presentation of the past, whatever media are used, requires a translation of the material culture for a particular audience. The mere act of translating or encoding the ideas diminishes the image, just as the sound quality of tape recordings deteriorates with each re-recording that is made.

'Footnotes help, verbatim texts help even more, detail impresses, numbers normally carry the day' (Geertz 1995: 17-18). Despite Geertz's assertion, a survey report that offered no interpretation but contained data – nothing but numbers in effect – would not carry the day. It may well give readers a free reign in their own assessment of the findings but it would not be a useful re-presentation. Nor is it likely that it would be well received – archaeologists may want to interpret for themselves, but they also like to know what others think. If the Biferno Valley Survey or the UNESCO Libyan Valleys Survey (ULVS) had published just their gazetteers and catalogues (Barker 1995b; Mattingly 1996) – as indeed the Canadian Palaipaphos Survey Project (CPSP) has done (Sorensen and Rupp 1993), so far – then a reader would have little more than a collection of lists and numbers with very little indication of how, when or why the data were collected. So whilst a reader is able to interpret for themselves they have no context in which to place the data.

**Summary**

Whilst the style of archaeological reporting may have changed over the years, the reports have always re-presented the archaeologists' subjects – and will continue to do so as, inevitably, styles of reporting continue to change. Whether seen as *the big picture* or *the whole story* any re-presentation is a sum of the parts that the author has chosen to assemble, ready for a dialogue with the reader. And no matter what components are chosen and at what level they are pitched every publication will be looked at differently and engaged in a different dialogue, with different results, by each new reader, perhaps at each new reading. So that, whilst the writer's and the reader's re-presentations are inextricably linked, they are different things. The writer's re-presentation, built out of the archaeologist's evidence and experience in the field, is given some physical, unchanging form in the publication. The

reader's re-presentation, created from the reader's dialogue with the publication and modified by the reader's experience and knowledge of the subject, is essentially ephemeral – something transient that may, or may not, live on in part in the reader's mind.

# 3 Methodology - Presentation

- Words, numbers and pictures
- Format and style

**What is presentation?**

To produce the results of detailed and often wide-ranging research in a coherent, accessible manner is no easy matter but, as discussed in Chapter 1, it is a vital part of the archaeologist's responsibility to subject, profession and public. In Chapter 2.3 I discussed aspects of re-presentation – points to be considered with regard to the image offered by the archaeologist to the world outside the project. This image could never be produced without close attention to its presentation – the practical aspects of format, style and media; the elements employed to encode the four-dimensional landscape on the two-dimensional page, where space and time merge (Tufte 1997: 57).

Communication in print is interesting – it is not a direct exchange of information, indeed it is not an exchange at all. The author compiles a report and it is published, but whilst it may be directed toward a particular audience there is no guarantee that it will reach it. The decision to receive is entirely with the audience; the author's words might be priceless, the data set exhaustive, the interpretation measured and plausible but still the book can remain unread. Publication is not quite as uncertain as throwing a message in a bottle into the ocean, but they have much in common. A published report is placed in the public domain offering the opportunity for others to read the author's work; but a potential reader must find the work before they even begin to make the decision to read it, or not. Leaving aside the discovery of a work and the persuasive role of marketing in the matter, a reader's decision to read or to continue reading can be encouraged by good presentation.

If presentation is thoughtful and intuitive so that readers can study the work without distraction by awkward layouts or impenetrable diagrams then the author's re-presentation is more likely to be clearly visible without preventing the readers from re-presenting in their turn. Work that is presented in such a way not only eases the study of their subject but also makes it far easier to compare with others.

This chapter is intended to bridge the gap between the rarefied theoretical and philosophical arguments of Chapter 2 and the more practical consideration of the make-up and effectiveness of survey reports, covered in Chapters 4 and 5. In this chapter I illustrate some points with examples taken from the ten projects studied for the dissertation – more information on each project can be found in Chapter 4, as can an explanation of the process by which they were selected (4.1).

Much of the discussion that follows concentrates on the printed page and, since this remains the favoured medium for the dissemination of archaeological reports, I shall use its terminology even though many of the issues arising apply as much to digital reports as they do to reports on paper. There are one or two points particular to digital media and those are dealt with separately.

**Elements of presentation**

The contents of a publication are the product of background research, fieldwork, analysis and interpretation; it is a record of the material culture collected and contexts recorded during a project's life. Data are recorded and presented in three formats; whether in a relatively sparse interim report or a comprehensive final publication, data on the page become words, pictures or numbers. No format is appropriate for all data – a map explains an area's location far more efficiently than does a paragraph of text for example – and it is in making the appropriate choices that much of the skill of presentation lies. Words are perhaps the most commonly used, pictures the least dense in data and numbers the most abused whether by underhand manipulation or, more often, inefficient presentation. Ideally all three would be integrated to present an uninterrupted flow of data and argument without recourse to *see figure opposite* – or, as often as not, several pages away. But compromises have to be made between the ideal presentation, the nature of the data and the practicalities of publishing so that publications such as Tufte's (1983; 1990; 1997) are rare exceptions.

**Words**

We talk about writing reports, and words form the dominant mass into which other pieces of information such as photographs and drawings are inserted. In a literate society words, rather than pictures or numbers, are the first tool we select to transmit information. Words form the linear flow that leads the reader through the process of a project, from conception

to interpretation and, given this central role, it is important that they perform it efficiently. It could be argued that so long as the words used in a report contain the project's data they are doing their job. Any piece of writing must be meaningful to its target readership and the words it uses can help it to do so clearly and efficiently.

Despite the specialist nature of survey reports their readership is likely to cover a broad spectrum of expertise. It would be limiting for the author to aim every report at the lowest common denominator and limiting for the reader if every report were aimed at the highest common denominator, but an author must keep both of these in mind. Writers of academic and technical works might feel more able to ignore their readership because their initial brief is to impart information and not to entertain as it is for the novelist. Such an attitude is arrogant and self-defeating – an unreadable book will not be read and the information in it will, effectively, be lost.

It is not practical to begin every book from first principles; readers have responsibilities too, although not perhaps to the extent envisaged by Shanks and Tilley (1989: 8) – readers can benefit from a text without being challenged by it. Their attitude smacks of an elite, membership of which is reliant upon use of a coded language. Occasional recourse to the dictionary whilst reading is interesting, exciting even, but constant reference simply to make it through a paragraph is frustrating. I would take issue with Heite's (1999) assertion that 'if we were to write our reports in the same language style that we use verbally among ourselves in the bar, we would produce much better reports.' Such conversations would certainly be full of jargon. Specialised language is a useful shorthand or shortcut when used amongst peers, but its unchecked use outside a tight, specialised circle, in a survey report for example, displays laziness on the part of the author. Jargon makes assumptions of knowledge, which outsiders do not possess and no matter how seriously they take their responsibility in reading a text, readers cannot hope to understand a narrow, specialised language without some explanation. Heite (1999) is right: we need to use clearer language but not, I think, that which we use 'verbally among ourselves.' Simple language does not trivialise a subject. It broadens its potential sphere of influence and allows more people, not all of whom will share the author's native tongue, to join the debate. However, easy reading should not be confused with easy writing – simply adopting a colloquial tone ain't enough.

**Numbers**

Numerical data are presented on the page in tables, graphs, distribution plots and maps, and as much thought needs to go into the relevance, composition and presentation of these graphics as into the paragraphs of text around them. Graphics are sophisticated elements of presentation, data-paragraphs in themselves (Tufte 1983: 181) and not simply diversions for anyone finding the words too difficult; they should not be shoehorned in to break up pages of text or to show off how much information was gathered by a project.

The apparent simplicity of some graphics means their importance can be underestimated and at times too little thought goes into their production – or perhaps too much of the wrong kind of thought. Decorating a graphic can at one level be unnecessary and a waste of ink; at another it can obscure or distort the data it was designed to present (Tufte 1983: 57-59) An inefficient or inappropriate graphic can leave a sizeable hole in the data and quite possibly distort a re-presentation as a consequence.

There is no great conspiracy to present misleading data to the archaeological community but through carelessness or their unthinking application graphics often do just that – a series of maps presented by Barker (1995b: Figs 3-25) are prime examples. Maps are classed as graphics, rather than pictures, because they display numerical data pertaining to an area, rather than images of it. Barker's maps are captioned 'survey results' but in fact only the location of survey units can be extracted from the overwhelming background noise. Also, the maps have been reduced to fit the page so that, whilst there is a bar on each that gives an accurate scale, they are no longer 1:25,000 as stated both on the maps and in the text (Barker 1995b: 1).

Barker drew his data onto an existing map and its confusion of detail. Elsewhere archaeologists create their own confusion by including too much extraneous data or by making the relevant information difficult to look at. The ease with which computers can now generate graphics has exacerbated the situation and survey reports now often display data in a welter of chequers and cross-hatching (Cherry *et al.* 1991: Fig.8.6; Ammerman 1995: Fig.1). But computers have only opened the field of inappropriate graphics to a wider

public; plastic-film products such as Letratone have been supplying a smaller market for years, as this extract from an early 1980s catalogue shows.

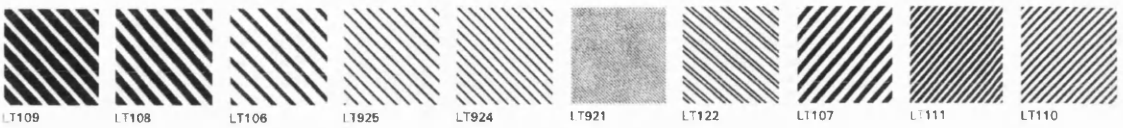



**Figure 6. Letratone: Cross-hatching.**

Far better for readers everywhere if the creators of graphics use as many shades of grey as the limitations of printing will allow, or choose from a less extreme section of the Letratone catalogue.

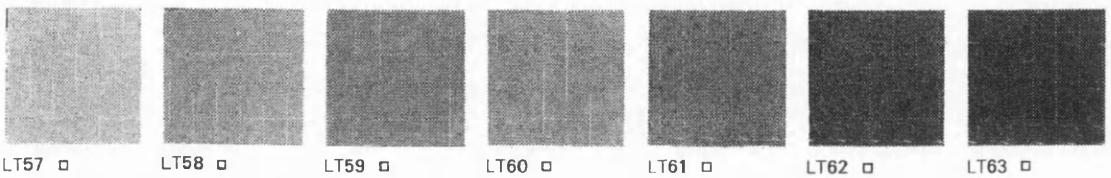



**Figure 7. Letratone: Shades of grey.**

### Pictures

Pictures are often underestimated and seen solely as decoration, but their role is far more important than that. They, like graphics, are data-paragraphs; their content may be sparser, but each photograph, artefact drawing, plan, section and reconstruction presents data to the reader. Even a seemingly general photograph of the landscape can vividly describe working conditions on a survey and give a context to the methodologies, findings and interpretations in the report.

This picture, occupying what would otherwise have been a blank page, illustrates a wide expanse of ground typical of the UNESCO Libyan Valley Survey (ULVS) study area, including a *gasr* – the predominant settlement site found in the region. And the camel confirms to European readers that Libya is a strange and foreign place.

**Figure 8. ULVS survey area (Barker 1996: Frontispiece).**

Plans, sections and artefact drawings are immediately perceived as facsimiles of the original but, whilst there is no doubting their data content, they are never the less works of interpretation. More obviously interpretive, even a reconstruction drawing must contain data if it is indeed a reconstruction and not a work of imagination – but the ratio of data to effort and the space they take up must, in some cases, bring them perilously close to decoration (James 1997: 22-48). By their very nature they are speculative and place a greater responsibility on the reader to see past the surface to the data within. Their place in publications aimed at the profession might be questioned (James 1997: 24), but as composite interpretations of disparate elements of evidence reconstructions will always be a valid inclusion in archaeological reports.

**Design and Style**

"It is in the authors' own interest to ensure that those who first read their theses can do so with ease. Thereafter it is largely a matter of courtesy ... to unknown readers..." (B.S.I. 1990: 3.1)

The BSI's advice on basic design and format is worth applying to any piece of writing – no publication is worth the paper it is printed on if the information within is inaccessible. It is too easy to believe that beautiful pictures, spectacular graphics and simplified language – the relative merits of which are discussed above – can ease access to the information in a publication. No matter how appropriately the individual paragraphs are presented, much of this work will be wasted if their layout on the page is ignored. Good page design is an unsung element of presentation and at its best design is invisible to a reader (Derricourt 1996: 123).

Responsibility for design should be shared – the publisher, designer and typesetters are experts in their fields (Derricourt 1996: 120) but so too is the archaeologist. Both areas of skill are necessary to produce an archaeological report but a balance needs to be struck between the practicalities and house styles favoured by the publishers and the wilder demands of the data as seen by the archaeologists. Just such a balance has recently been struck over the use of colour in the Sydney Cyprus Survey Project (SCSP) monograph (M. Given p.com.) – although on this occasion the archaeologist clearly feels it is a compromise rather than a balance.

Now that electronic publishing allows more lay-people to take part in page design we can begin to appreciate the skills of the professionals, whether on-line or on paper. With the increasing use of web sites to offer information of all kinds thoughtless page design is rampant as a random browse across the internet will demonstrate. There is a tendency amongst web-designers to cram as much information and as many gimmicks into a page as possible – simply because they can (Flanders 2001). Page design like this – the Freeserve home page is a prime example (http://www.freeserve.com) – only serves to confuse with a barrage of cramped type, minute pictures, clashing colours and random typefaces.

**Digital media**

Film, video and sound recordings all capture images of archaeology, but books and journals remain the most readily accessible and transferable format in which ideas and information are presented and preserved. The printed page gives up its content without recourse to specialist equipment; it is portable and remains, for the time being, the largest repository of archaeological communication there is. There is no ignoring the burgeoning use of computers both in the recording and manipulation of data and in its presentation to the readership. I am not aware of any project offering its final record as a CD-ROM, although a CD-ROM has been produced to re-present Çatalhöyük to a public audience (Hodder 2000: 3). Financially attractive though such an idea may be, it might already have been rendered redundant by increasing use of the internet. However until conflicts between tradition and technology, space and ideas, aspiration and financial constraint are resolved I do not foresee the project web site, or even CD-ROM, supplanting the dominance of the printed page.

Archaeologists use the internet in different ways. Sharples (1998: 10; http://www.cf.ac.uk/hisar/archaeology/reports/scalloway) posted the kind of raw data from Scalloway Broch that would otherwise have been included on microfiche with his print volume. This is just a series of lists and represents the least sophisticated use of the internet – as a data dump. The Archaeological Data Service (ADS) (http://ads.ahds.ac.uk) is rather more complex, offering public access to a wide variety of data, in a maintained archive, submitted by archaeologists working all over the world. Such sharing is admirable and to be encouraged, but neither this, nor Sharples' data dump present a project's full record.

SCSP made full use of the internet; after six field seasons it had enormous amounts of data and staff on three continents. Staff had access to a private web area where all data, drafts and final contributions to the publication were posted. The speed and efficiency with which the monograph reached publication stage is credited in no small measure to the wonders of the web. Whilst all the project's work was on this site, access to it was limited and the final publication will be in print (Given and Knapp forthcoming). SCSP does have a public web site (Given *et al.* 1999) containing a digest of its data and interpretations. The Pylos Regional Archaeological Project (PRAP) web site (Davies *et al.* 1996) offers wide ranging information about the project and copies of all the preliminary reports, but the project still resorted to traditional paper publication for its scholarly syntheses (Davis *et al.* 1997; Zangger *et al.* 1997).

The evaluation of publications will always be a matter for concern. In traditional publishing a system exists for peer-review, a practice that is beginning to be transferred to the internet; Internet Archaeology (http://intarch.ac.uk) boasts it is the first fully refereed e-journal for archaeology. The academic world will not fully overcome its suspicion of electronic publishing unless such a system is in place and until it is the reader must tread carefully and read warily (Cameron 2001). Doubt over the internet's reliability as a source of information can only hamper the move toward the wide acceptance of on-line reporting, which may be no bad thing. Fascinating though it is there is an awful lot of rubbish on the net and perhaps initial suspicion will give archaeology long enough pause to consider the potential of the medium before exploiting it to the full. Unthinking application of internet technology will at the very least lead to the needless duplication of the printed page.

Such duplication would be a waste of the technology. Hypertext links can allow readers to jump from one point in an electronic publication to another with far greater accuracy and certainty than is possible in a book. A reader can choose to follow a particular path through a report without having to wade through much that is, for that reading, irrelevant. One clear advantage must be that, whether or not it is read linearly, the flow of text need no longer be broken by references – they can be called up by clicking on a 'hot spot.' So, readers are freed from searching through bibliographies – the full information can be brought on-screen

with one simple mouse-command. Pictures and graphics no longer have to be tied to a particular point either and can appear alongside relevant text at the click of a mouse.

There are disadvantages to electronic publication beyond the lack of trust and need for specialist equipment but, between them, technology and a measured approach to its capabilities should reduce or at least keep them in check. Computer displays are becoming easier to read and the computers themselves more portable and, once wireless internet connection becomes standard, on-line presentation might begin to rival books for flexibility.

**Summary**

Ideally then, the words used in a survey report would be clear, fluent, informative and appropriate to the target readership; readers have a responsibility to make an effort to understand a piece of work but this does not excuse writers from producing readable texts. The words would be fully integrated with clean, clear and above all appropriate, data-rich pictures and graphics and the publication would be laid out on the page in a pleasing intuitive design. The strictures of personal preference, traditional publishing and financial reality, however, often mean that publications fall far short of such an ideal. There is always a danger with a list of demands like this of seeming to advocate standardisation, of which there is already enough in publication and archaeology as it is – any more and we risk stifling the individual, exploratory approach necessary for development. The general principles are worth applying, but good writing and good design tend to be invisible and ignored as a consequence. However, if presentation is executed with appropriate illustrations and accessible layouts archaeologists might find their readership far more receptive and, possibly wider ranging.

# 4 Data: Ten Reports

## 4.1 Introduction

- Choosing the reports

In this chapter I present summaries of the survey reports that are the main subjects of my discussion in Chapter 5, where I will consider elements of these publications in the light of points raised in Chapters 2 and 3. The reports themselves are my focus rather than the projects and their methodologies, although both will be summarised here to provide some context for assessing the publication. This is not a comparison of survey methodologies; the main consideration here is the presentation of each project in its publication and how that might affect any re-presentation of the subject. That said, it is vital that survey methodology is clearly laid out if data, results and interpretations are to be useful to a reader, particularly to a reader who wishes to compare projects one with another.

The intention was to study reports from projects working a broad range of subjects all around the Mediterranean, on islands as well as the mainland. All points – north, south, east and west – are covered, although other factors in the choice of projects has resulted in a bias toward the eastern Mediterranean and something of a cluster of projects in Italy. There have been significant technological advances in publishing in recent years and so I chose reports that were published during the 1990s. This does not, of course, reflect the period in which survey work was carried out – some projects publish more promptly than others. These ten years are sufficient to illustrate the changes in technology and different approaches to publication without becoming unmanageable. There is an outlier at either end – the Ager Pharensis report (Bintliff and Gaffney 1988) is interesting for its early use of computer generated distribution diagrams and the SCSP monograph (Given and Knapp forthcoming), again experimenting with computer graphics, brings the sample right up to date. I chose reports, preliminary and final, so that there was a relatively even spread of publication dates across the studied period.

Both final and preliminary reports are included in my consideration of the data since the progress of a project is as important and as interesting as the final work. Preliminary reports can be at once more and less detailed than a final report; they are generally concerned with a shorter period of fieldwork and consequently can concentrate upon the minutiae of

technique and the development of methodology. But at the same time they deal with incomplete data, or results that are not fully analysed, limiting them to more general conclusions about the work carried out. Whether a publication reports an entire project's work or just a single season, similar issues need to be addressed with regard to its presentation and subsequent re-presentation.

I have only included one internet presentation – *The Pylos Regional Archaeological Project: Internet Edition* (Davis *et al.* 1996) – because, as discussed in Chapter 3, the internet is not yet seen as an entirely legitimate forum for the dissemination of information. More and more projects have web sites, but to complement existing methods of communication rather than to replace them. The internet, whilst technologically so different from printed matter, must be subject to many of the same considerations if data is to be presented efficiently and *The Pylos Regional Archaeological Project: Internet Edition* is included here to compare presentation in the two media, not to begin a new debate over the academic merits of project web sites. Online publication might become more popular as technology becomes more efficient, but for the time being, despite having some spectacular advantages, particularly where illustration and colour are concerned, the computer has yet to beat the printed page for disseminating a project's work.

The reports in this chapter are ordered chronologically, by publication date to allow the reader to chart the changes and developments in publications through time.
To follow this progress through only preliminary reports, refer to:

| | | |
|---|---|---|
| 4.2 | Ager Pharensis/Hvar Project | (Bintliff and Gaffney 1988) |
| 4.4 | Agro Pontino Survey | (Voorrips *et al.* 1991) |
| 4.5 | Acconia Survey | (Ammerman 1995) |
| 4.7 | Konya Plains Survey | (Baird 1996) |
| 4.9 | Pylos Regional Archaeological Project | (Davis 1996) |
| 4.10 | Northern Albacete Survey | (Gilman *et al.* 1997) |

And to follow the development of final reports refer to:

| | | |
|---|---|---|
| 4.3 | Keos Survey | (Cherry *et al.* 1991) |
| 4.6 | Biferno Valley Survey | (Barker1995a, 1995b) |
| 4.8 | UNESCO Libyan Valleys Archaeological Survey | (Barker 1996; Mattingly 1996) |
| 4.11 | Sydney Cyprus Survey Project | (Given and Knapp forthcoming) |

Some attempt has been made to standardise the description of each survey report studied, although given their diversity this proved difficult. Essentially I introduce the project, its aims, region of study, dates and the level of work undertaken; then I summarise the presentation of the project; and thirdly I consider re-presentation of the project and the landscape surveyed. In this chapter the reports are reviewed very much in isolation; the discussions in Chapter 5 bring the projects together to compare their strengths and weaknesses. They seek to trace developing techniques such as the improvements in computer graphics or the introduction of digital media and to establish the affect they have had on archaeological survey reporting.

There are points associated with presentation that are virtually standard: all reports use the Harvard referencing system; all use serif fonts in the body of their text; titles and captions are clearly distinguishable from the body text. Such things are standard and will not be mentioned case by case, unless they differ from the norm or are noteworthy in some way. Equally, body text is either printed across the full page or in two columns and in most cases will not be noted. Writing style is a personal matter and again will not be commented on here unless of particular note; I have, I believe, made my views quite clear in Chapter 3. All these things have an important input into the presentation of a project but are, as discussed in Chapter 3, either so well established as to be immutable or so personal as to be untouchable, whether manifested as an individual authorial voice or, as is often the case, in an overarching editorial voice. Overall it is important to remember in what follows that the presentation and re-presentation are of more importance to the summary than the project and its methodologies, although it would be foolish to try to separate the two permanently.

Page references in this chapter will refer to the publication cited at the head of each section unless a full reference is given.

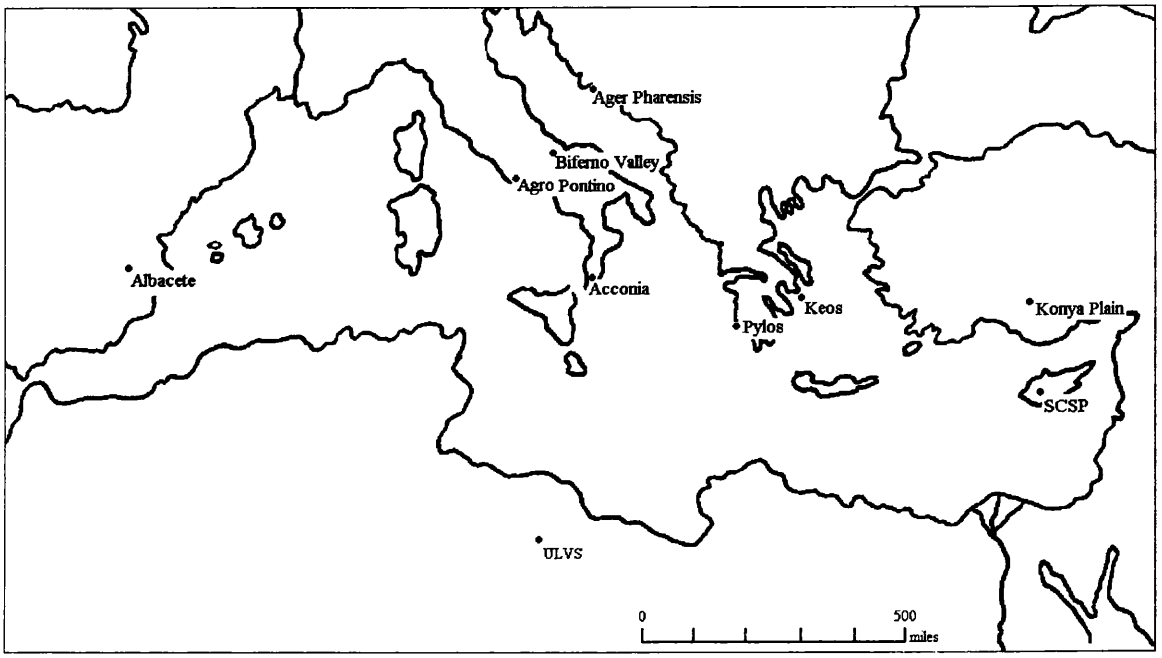



**Figure 9. The Mediterranean showing the approximate location of surveys studied in Chapter 4**

## 4.2 Ager Pharensis/Hvar Project

**Bintliff, J. and V. Gaffney**

1988 The Ager Pharensis/Hvar Project, 1987. In **Chapman, J.C., J. Bintliff, V. Gaffney and B. Slapšak (eds)** *Recent Developments in Yugoslav Archaeology*. Oxford: B.A.R. 151-175.

### Project

The Ager Pharensis/Hvar Project had its first field season in 1987. Their aim was to try to establish patterns of population, settlement and agriculture and the effects of social and political change in the area from ' the earliest times to today.' They carried out intensive survey on the plain (151-152) within a field system that had been the subject of previous study between 1982 and 1986 (Slapšak 1988: 145-149). In 1987, four sites identified by field walking during the season were surveyed in more detail (153) – the results from three of them are discussed briefly (153-154) whilst the fourth – Pharos Site 3 – is dealt with in some detail (154-156).

### Presentation

Graphics are presented separately, after the text. A map of Hvar (Fig.9.1) is cluttered, but gives a broad summary of human activity on the island from the prehistoric period to the

nineteenth century. The two other maps (Fig. 9.2, 9.3) are clear, clean and simple but, with the exception of Pharos Site 3, it is impossible to locate the sites on them that were surveyed. As a consequence all subsequent data displayed on density diagrams (Fig. 9.4-9.7) floats, untethered, somewhere in the survey area. The number of sherds counted in each sampling cell is written on some diagrams and contour lines enclose different levels of finds.

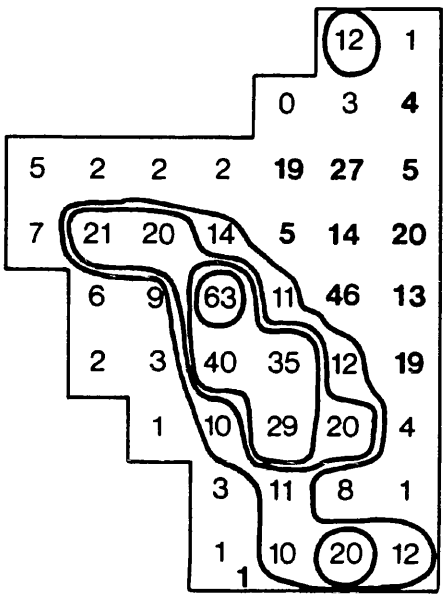



Figure 9.7c Site P4, intensive survey results.

**Figure 10. Example distribution diagram (from Fig. 9.7c)**

This style of presentation, whilst it may have been highly advance for its time, is cluttered and confusing; the individual numbers give no visual clue as to the relative sherd density in each cell. Where numbers give way to shades of grey within contour lines the diagrams are much clearer. This method is used consistently for Pharos Site 3 (Fig. 9.9-9.13) where the results of gradually more intensive – and in this case invasive – methods are shown, although constant need to re-orientate the diagrams makes this progress harder to follow than it should be.

### Re-presentation

This preliminary report is a neat, quick and clear explanation of a single season's fieldwork. Interspersed throughout the description of the methodology are explanatory asides as to the basic nature and aims of survey (151-152), which seem a little elementary for a paper published in 1988, but perhaps reflect a fundamental need to take nothing for granted. The three brief descriptions give little more than tentative periods, possible use and approximate area of each site. Results are, within the limitations of the diagrams, displayed fairly clearly, but are presented with no explanation beyond a caption – as seen in the example distribution diagram, above.

The authors' re-presentation seems to be at a low level, the report contains mainly methodological information and manipulated, but largely uninterpreted, finds data – the information is a sparse overview as befits a preliminary report.

## 4.3 Keos Survey

**Cherry, J.F., J.L. Davis and E. Mantzourani**

1991 *Landscape Archaeology As Long-Term History: Northern Keos in the Cycladic Islands from Earliest Settlement until Modern Times.* Monumenta Archaeologica 16. Los Angeles: UCLA Institute of Archaeology.

### Project

The main season for The Keos Survey was in 1983 with some further field and museum work undertaken in 1984. The survey was intensive (16-20) and diachronic (10, 27) with the general aim of establishing some principles of settlement organisation under a variety of social and economic constraints (3). With the exception of historical and epigraphic research, the methods employed were solely archaeological.

### Presentation

The content of this large, single volume is well spaced so that, despite the quantity of information included, it seldom feels cramped. Graphics vary throughout the monograph, suggesting that the different specialists and authors worked in isolation on their text and illustrations. Several different outlines are used for maps of the survey area used in the report, but they tend to be uniform within each chapter – in format if not in scale. The lighter weight outlines used for artefact distribution maps in Chapter 11 are particularly effective, providing a simple context that does not interfere with the information displayed. However the heavy-type site numbers distort the distribution patterns – a smaller, lighter type, perhaps even grey font, might have alleviated this problem. A direct comparison is available between heavy and light outlines (249) highlighting the obtrusiveness of the former and the quieter effectiveness of the latter.

Topography was clearly a significant element in the study of Keos but the density of contours lines combined with further linear information, spot data, shading and heavy outlines has resulted in some very cluttered maps (e.g. Fig. 21.20-21.24). In some cases, where the mapmakers seem to have fallen prey to inappropriate computer-generated

shading, maps are cluttered and unhelpful even without the inclusion of contours – ground visibilities (Fig. 3.2) and the sea (Fig. 13.3) are two prime examples.

Graphics and pictures are well integrated into the text, although whole pages of artefact drawings, site plans and photographs are presented together (129-156) at the back of the gazetteer (69-128) with no attempt to combine these disparate site-specific text-paragraphs and picture-paragraphs. Chipped stone photographs and drawings are similarly presented by the pageful, throughout the chipped stone chapter (171-195). The drawings in Chapter 21, whether reconstruction or idealised renderings, are clearly executed and integrated quite neatly into the text. With a drawing as complex as figure 21.3 it would be difficult for all the relevant text to appear on the same page – although details from the main illustration as appropriate reminders within the explanation might be an answer to this.

**Re-presentation**

Published in 1991, this monograph is the final publication of The Keos project and presents far more than the results of field work and their interpretation. It was clearly a self-aware survey - Part I (1-54) is devoted to a detailed consideration of the project's approach to methodology, survey techniques and data evaluation. Particular attention is paid to on- and off-site distributions and definitions (45-54). Part IV, Patterns in the Landscape (457-479), seeks to make comparisons between the findings on Keos and wider Mediterranean patterns. In seeking to establish a context for Keos they feed their interpretations back into established arguments and systems as a case study.

It is noted in the preface (xv) that some reconsideration of the original proposal (Cherry and Davies 1983: 275-277) was necessary. The Greek authorities reduced the survey area from the whole island to a small area in the northwest of Keos and the project was granted less time for field work than had been hoped for. As a consequence the work that took place differed significantly from the published proposal and whilst 'significant themes' (9) are spoken of, as are interests (11) the project's new aims and approaches are never laid out as clearly as they were in the original proposal. Perhaps the closest they come to stating an approach is in quoting Renfrew and Wagstaff on Melos (4), seeming to suggest that Keos was studied as closely as possible with as open a mind as possible and the findings

presented as comprehensively and integrated as possible. Without such a declaration it can be difficult for readers to compare their conclusions with those of the authors.

The main body of the monograph, having presented a comprehensive body of background data (55-162) including a Gazetteer of Archaeological sites (69-156), approaches the findings in three broad time bands: Prehistoric (163-232); Classical Antiquity (233-348); Medieval and Modern (349-454). Each period is synthesised within its own section; it is not until Part IV that any attempt is made to draw comparisons across the periods (454). There is much interpretation in the volume, but sufficient data, discussion and explanation for readers to come to their own conclusions, should they so wish.

## 4.4 Agro Pontino Survey

**Voorrips, A., S.H. Loving and H. Kammermans (eds)**

1991 The Agro Pontino Survey Project: Methods and Preliminary Results. Amsterdam: Universiteit van Amsterdam, Instituut voor Pre- en Protohistoriche Archeologie.

### Project

The Agro Pontino survey ran from 1979 to 1989 with fieldwork taking place each year except 1983, 1985 and 1987 (3-5). The original work in the area is now completed, but the situation remains open ended with Voorrips looking forward to the possibility of further work in the area in the future, albeit with a somewhat different focus (6). The survey was a wide-ranging, diachronic project investigating links between changes in settlement patterns and socio-economic conditions. The geological background and soil structures were studied to provide a context for the archaeological evidence, and environmental conditions were taken into account through palynological study. The project was also very conscious of its methodology – three papers in the volume are concerned with sampling design, field methods and visibility factors (1-2).

### Presentation

This volume is a collection of ten papers written by members of the Agro Pontino survey – all of them result from work carried out on the project, but each can stand alone as a separate report. The papers on field methods and visibility factors are much concerned with

statistical analysis. Their approaches are clearly described in each case, but the explanations assume, what seems to me to be, a reasonably detailed understanding of statistical mathematics.

The inevitable plethora of tables produced by these studies are adequate, but are for the most part unimaginatively laid out – captions are cramped and full of detail; labels are indistinguishable from the data; and much of the spacing and alignment is ungainly or distracting. Graphics are, on the whole, fairly well integrated into the text with columns being used in one or two places to make a better fit. There are occasions, however, when tables have been awkwardly positioned. For example, on pages 69-71 some minor adjustments could have put each of the three tables adjacent to the text-paragraphs discussing them without disturbing any layout on preceding or following pages.

Most of the maps used in the volume are created on a uniform base layer so that each one has the same basic features.

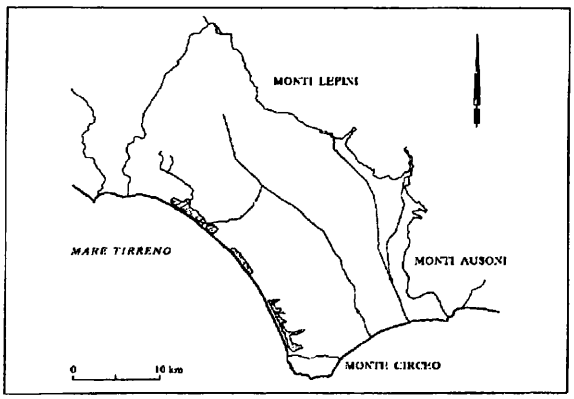



**Figure 11. Agro Pontino – Example outline**

This makes the comparison of data much easier – not just within papers but between them as well. Since the basic pattern does not change it becomes familiar and, without distracting attention from the data placed onto it, remains prominent enough to give them context. The data are then the most visible element and changes between maps become far more apparent.

**Re-presentation**

These are preliminary results from the project and whilst there are clearly links between the papers there is no cohesive unity to the volume, nor is there an overall synthesis of the area or assessment of the project's achievements. More in-depth studies are promised (6) but each is, again, limited to a particular period or topic – there seems to be no prospect of an overall project report.

## 4.5 Acconia Survey

**Ammerman, A.J.**

1995 The Dynamics of Modern Land Use and the Acconia Survey. *Journal of Mediterranean Archaeology.* 8.1: 77-92.

### Project

The Acconia Survey ran from 1974 to 1980 (88) and this study arose out of the project. Systematic, extensive, field by field, survey of modern land use was carried out in the survey area in 1980, 1989 and 1998. Clearly this work had an off-site focus and was not, in fact, directly concerned with the archaeology of the area; it was concerned with the effect of modern land use on surface visibility and the effect that this had on the discovery of sites through survey.

### Presentation

The paper is divided into four logical sections with clear headings and graphics fairly well integrated with the relevant text. Tables are free from the clutter of heavy lines, but the different styles of cross-hatching used on maps to indicate land use (Fig. 1, 2) are so active – interfering with one another as well as the field boundaries – that it is difficult to focus on the information displayed. The language used is clear and there is even a simple explanation of the transition matrix used to interpret the survey results, although this does involve a baffling foray into Bengali employment figures in 1949 (84).

### Re-presentation

This preliminary report from the *Journal of Mediterranean Archaeology* discussing Ammmerman's work in 1980 and 1989 (79) is indicative of survey archaeology's attention to methodology. Rather than reporting results and findings of the Acconia Survey the report focuses on a small, but important, element affecting the work it carried out. Whilst it should not come as a surprise that land uses change during a six-year survey, and whilst suggestions are given as to how to deal with these changes (90-91), this detailed, long-term study does serve to remind us that changes in the present must be considered in order that we might fully understand the reliability of information gathered about the past. A picture is put forward, not of a past landscape, but of a current, dynamic landscape, within which older elements are revealed or concealed as the land is worked, abandoned or put to different uses.

## 4.6 Biferno Valley Survey

**Barker, G.**

1995a *A Mediterranean Valley: Landscape Archaeology and Annales History in The Biferno Valley.* Leicester: Leicester University Press.

**Barker, G. (ed.)**

1995b *The Biferno Valley Survey: The Archaeological and Geomorphological Record.* Leicester: Leicester University Press.

### Project

Principal field work on the Biferno Valley Survey took place between 1974 and 1978 although related work continued through the 1980s and subsequent work has continued in the area ever since. The survey area was defined by the Biferno River's catchment with minor extensions to include a representative sample of both upland and lowland zones. Very little archaeological information had been recorded about the area prior to this project but it is now one of the most intensely investigated areas in Italy (1995a: 14, 41). This was a multidisciplinary project including geomorphological, palaeoenvironmental and documentary investigation alongside various archaeological techniques. Intensive surface survey was the prime method of gathering information but geophysical survey, augering and excavation also played a part. The principle aim was to investigate the shifts in settlement between upland and lowland areas and the impact of settlement and movement upon the environment (1995a: 14).

### Presentation

The two volumes of this publication are very different. *Landscape Archaeology and Annales History in The Biferno Valley* (1995a), a synthesis of theory, ideas, methodologies and findings is typeset by professionals and produced in small (160 x 240 mm), hardback format. After chapters on approaches to the topic, methodology and geomorphology the volume presents, in eight chapters, a chronological synthesis and interpretation of the project's work. Graphics and pictures are generally clear and included in the text as close to their first mention as possible. The soft-covered *The Archaeological and Geomorphological Record* (1995b) is A4 size and produced from camera-ready copy at the University of Leicester. The majority of lists in this volume, close-typed in double columns, are dense but readable. Full pages of pottery drawings and photographs are spread throughout the catalogues so that text and picture, whilst often close are never as fully integrated as they could be.

The series of maps in 1995b (Fig. 3-25), black and white copies of Instituto Geografico Militare 1:25,000 maps, show the position of survey units in the Biferno valley but not, as the captions suggest 'survey results.' These maps locate the survey work in the landscape but the profusion of superfluous detail they show confuses the data they are intended to present. Also, as they have been reduced they are no longer at 1:25,000 as the maps and text (1995b: 1) both announce – a scale bar on each map partly overcomes this misinformation.

Where photographs are used they often feature project personnel at work who are, unusually, identified by name, further tying the procedure illustrated, and so the publication and project, into the reality of fieldwork and the outside world. Other photographs of agricultural workers neatly communicate the change in farming techniques since the 1950s.

**Re-presentation**

This report is very aware of its pedigree, as well as its long gestation – the photograph, from 1953, of a woman working in the fields, that features on both front covers and the frontispiece of 1995a perhaps emphasises the changes that must have occurred since prehistoric times by picturing a past, from within living memory, that is nevertheless irrevocably lost. This awareness becomes ever more apparent in Chapter 1 when this project, its aims and approaches are put into context against *Annales* theory, the South Etruria project and Vita-Finzi's work from the 1960s. The interpretation in 1995a is supported by sufficient data for readers to understand the process by which conclusions were reached. For readers to begin to draw detailed conclusions of their own they would probably need also to refer the lists and tables of 1995b.

## 4.7 Konya Plains Survey

**Baird, D.**

1996 The Konya Plains Survey: Aims and Methods. In **Hodder, I. (ed.)**, *On The Surface at Çatalhöyük 1993-95*: 41-46. Cambridge: McDonald Institute for Archaeological Research.

### Project

As part of the wider Çatalhöyük project this survey was instigated to provide a detailed reconstruction of the settlement history of the Konya plain (44). This preliminary report covering the aims of the project and the methods employed in field work between 1993 and 1995 occupies a short chapter in the Hodder (1996) monograph.

The Konya Plain survey is a multidisciplinary project. Geomorphological study of past environments and their interaction with settlements on the plain were an important element (41, 42). Experiments to assess the efficiency of satellite imagery in site location were carried out (44). The concern with the changing environment and settlement suggests a regional landscape study.

The survey had an on-site focus – initially on Çatalhöyük to provide it with a contemporary and historical context (41). Latterly, the focus was on sites in the landscape around Çatalhöyük, identified by extensive survey, which were intensively surveyed.

### Presentation

Simple bullet points are used to highlight some listed items in the text. The writing is clear and methodically laid out; the two aspects of the survey – site location and site comprehension – are dealt with separately in each of the paper's three main sections.

The two graphics in the report are cleanly drawn although they do not present their data as clearly as they might. Figure 3.1 has such a profusion of prominent labelling that the distribution of plotted sites is obscured. There is no indication of what area the map covers – whether all, part or more than the survey area; there is no key to explain the different marking of sites; and the canals, important features in the survey, are not immediately discernable from the rather less important contour lines – the plain is flat enough to remove the role of topography from the project's consideration of settlement development (42).

Figure 3.1 is referred to four times (42 twice, 44, 45) and in only one case can the text preceding the reference be read directly from the map – "By walking these canals..." (44) – but only once the canals have been distinguished from the contours.

Figure 3.2 could be reduced to half its width, without reducing the size of plan of Çingene Hüyük, allowing it to be placed directly after the reference in the text (44). Figure 3.2 again favours heavy contour lines, which obscure the main object of the plan – an example of the distribution of collection squares. Whilst the contours are necessary to describe the tell, a lighter line would have made the collection squares more prominent. Although its position on the facing page is only a minor inconvenience such a reduction would also allow the text to be rearranged and the paper's page count reduced by one.

**Re-presentation**

The report creates a clear picture of the survey area - evidence available before the survey (41, 42) gives the impression of a high, dry, flat area cut by irrigation canals. Dominated by Çatalhöyük, the plain was nevertheless known to be densely scattered with other ancient settlements, many of which showed signs of multi-period occupation in the artefacts that littered the surface. Nowhere is the location of the Konya Plain described beyond the fact that it is relatively small, surrounding Çatalhöyük and is at an elevation of around 1000 metres above sea level. (41). In fact this is a failing of the whole volume; Çatalhöyük's location is only illustrated in passing on a geological map in the geomorphologist's chapter in Hodder's (1996: 21) volume. The map (Fig.3.1) locates sites known before the project and those found during it but strident labelling gives the impression that ancient settlement on the Konya plain, particularly to the west of the survey area, was arranged on a regular grid pattern.

Beyond adding sites to the map the results presented in this report (44-46) provide some chronological information about a handful of the sites and note evidence for both increase and decrease in settlement size through time. Evidence was also found of human burial and what are archly referred to as "certain industrial processes" (45).

The re-presentation is clear, but not detailed; Baird says it is "premature to talk of 'results' other than the proven value of our strategy and tactics" (45). It is unfair to expect too much

in the limited space and time available to a preliminary report and this one gives the clear beginnings of a picture of the Konya plain, the periods during which it was occupied and some of the activities taking place there. However the information given on both methods and results does not allow the reader to assess the "proven value" of their approach.

## 4.8 UNESCO Libyan Valleys Archaeological Survey

**Barker, G. (ed.)**
1996 *Farming The Desert: The UNESCO Libyan Valleys Archaeological Survey, Volume One: Synthesis.* Paris: UNESCO Publishing.
**Mattingly, D. (ed.)**
1996 *Farming The Desert: The UNESCO Libyan Valleys Archaeological Survey, Volume Two: Gazetteer and Pottery.* Paris: UNESCO Publishing.

### Project

The UNESCO Libyan Valleys Archaeological Survey (ULVS) was an interdisciplinary project that ran from 1979-1989 (Vol. 1: 1). In addition to archaeology it employed geomorphology, paleoecology and historical research in its evaluation of the roles of environment and people in shaping the history of pre-desert settlement in North Africa (Vol. 1: 20). The survey area was defined by the catchment of two wadi systems which covered a rough rectangle, some 300 x 250 km, the northern edge of which lies some 100 km south of Tripoli (Vol. 1: Fig. 1.1, 2.1, 26-27).

There was political interest in the archaeology of the pre-desert at the highest level (Vol. 1: 1) and whilst there is no suggestion that this had any influence on the results it certainly affected fieldwork. The project was instigated by the Libyan Department of Antiquities (Vol. 1: 1) and no fieldwork was possible between 1984 and 1988 due to a breakdown in diplomatic relations between Libya and Britain (Vol. 1: 3).

### Presentation

The two volumes have a similar look to them – body text is in a clear serif font whilst titles, captions, labelling and tables are, on the whole, sans serif. Thus the flowing information of the body is clearly distinguished from the clipped, terse delivery of titles, captions and tabular information. In Volume 1, presenting the synthesis of five field seasons' work, the text takes up the full-page width. Volume 2 is laid out with two columns to a page – a style

well suited to the brief nuggets of information comprising the gazetteer (Vol. 2: 1-316) and two pottery catalogues (Vol. 2: 319-351, 352-389).

A wide variety of graphics are included in the two volumes and are generally well integrated with the text. In Volume 2 there is not always a neat correlation between diagram and description, but this is presumably because of the high ratio of pictures and graphics to text in the gazetteer. Plans, sections, elevations, line drawings, photographs and tables are generally very clear, but graphs and histograms betray the touch of computer generated work in their overactive shading (Vol. 1: Fig. 5.42) and three dimensional layouts (Vol. 1 Fig. 8.4). Such reconstruction drawings as are included are executed with admirable subtlety adding enough detail to bring a plan (Vol. 1: Fig. 5.30) or isometric drawing (Vol. 1 Fig. 5.27) to life without descending to the whimsy of thatched roofs, smoking chimneys and gambolling children with dated haircuts.

Colour is used sparingly, appearing in just two chapters. In Chapter 2 there are a few photographs that illustrate real people at work and a false-colour satellite image – which is possibly the reason for colour in the chapter; the photographs might just be an opportunistic addition. Chapter 6 presents site distribution data manipulated using IDRISI – a Geographical Information System (GIS) – which explains the use of colour here.

The presentation of the survey area simply in terms of wadi and *hamada* (not wadi) in blue and white is very effective (Vol. 1: Fig. 6.1-6.13). This presentation works almost as well when the wadis are presented in white, surrounded by grey, or graded colour illustrating site density changes. The colours are, on the whole subdued enough not to obscure the data presented on each map. Fig 6.23 on the other hand is uncomfortable even to look at. There is no obvious gradation in the colours chosen – although red, orange, yellow, green begin the sequence of colours of the rainbow

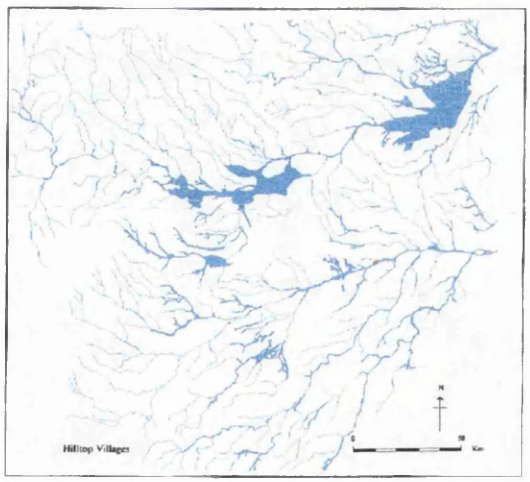



**Figure 12. Wadis in ULVS survey area (Vol.1 Fig. 6.1)**

pink, dark blue, light blue, grey do not finish it. The overall impression given is of hotspots (red, orange, yellow) around wadi junctions and headwaters and cooler bands (dark blue, light blue, grey) further away from them.

**Re-presentation**

These two volumes make up the ULVS' final publication. Volume 1 gives background and methodologies with particular attention paid to the human element – several pages (Vol.1: 21-26) describe the harsh conditions under which the survey was carried out. This trait continues throughout Volume 1 and, to a lesser extent, Volume 2 with many of the photographs including project members – either as scale or reminders that no matter how dry the data may seem people were involved in its collection and, by extension, in its creation in the past. The majority of Volume 1 is dedicated to the discussion of results from the Romano-Libyan period, for which most evidence was found in the survey area (Vol.1: 111). The collected archaeological evidence is initially discussed separately with reference to settlement and agriculture. However two subsequent chapters broaden the discussion to encompass more than archaeological evidence to consider first the environment (Vol.1: 291-317) and then people (Vol.1: 319-342) as agency in the history of the pre-desert. The final chapter (Vol.1: 343-363), focussing on the project's achievements, is structured around a series of questions harking back to the project's originally stated aims.

Volume 2 is a straightforward gazetteer and catalogue – the level of interpretation is made clear at the beginning of each section. In the gazetteer there has been very little manipulation of the data beyond tailoring it to fit the ULVS recording system (Vol.2: 1-18). The project's methodology has resulted in widely varying levels of description of sites, but there is no way of separating them within the gazetteer – so that Lm00012 is described simply as a cistern whilst Lm00011, also a cistern, has an eight-line description (Vol.2: 169). After brief introductions to their organisation (Vol.2: 319-320) and chronologies (Vol.2: 321-325, 352-355) the two pottery catalogues restrict themselves to brief description and drawings.

## 4.9 Pylos Regional Archaeological Project

**Davis, J.L.**

1996 *The Pylos Regional Archaeological Project: Internet Edition.* http://classics.lsa.umich.edu/PRAP.html Last accessed 23/viii/01.

### Project

Between 1991 and 1995 The Pylos Regional Archaeological Project (PRAP) studied approximately 40 square kilometers in western Messenia, Greece. Whilst the project was centred round the Palace of Nestor, excavated by Blegen between 1939 and 1969 (http://classics.lsa.umich.edu/PRAP/html/neh92.html), and whilst previously known sites were reinvestigated the survey by no means had an on-site focus. PRAP was a multi-disciplinary, diachronic project. It used intensive archaeological surface survey as well as geological, geomorphological, geophysical, and paleobotanical techniques to investigate prehistoric and historic settlement and land use in the area.

### Presentation

This on-line presentation of PRAP's work is by no means their only publication, but using the internet meant that project results were available to the general public and scholars as quickly as possible and could be easily updated each year. A gazetteer of all sites investigated by PRAP and catalogues of artefacts found during the project is also available through this web site although, displaying a weakness of electronic publishing, they are not currently available due to changes in computer organisation at the University of Cincinnati (J.L. Davis p.com). These records are intended to comprise the project's archive and the publication of print versions is not anticipated.

As it stands the PRAP internet report is a collection of electronic versions of preliminary and summary reports connected by links to a table of contents. Little advantage seems to have been taken of the flexibility and power of electronic publishing beyond full colour illustration (http://classics.lsa.umich.edu/projects/prap/viewsmaps.html). Bibliographic references are still embedded in the text, although footnotes are included as links to other windows. The reports are presented in a serif font, which, whilst eminently readable on paper, can become distorted by screen pixelation. Retaining a similar format to printed publication ensures a familiar feel for the reader, but it can become unwieldy. Electronic media are far better suited to short bursts of information than long scrolling pages of text.

This can be achieved without reducing the content of a report – it simply requires a different style of presentation.

In places the use of colour suggests an over-reliance on the computer's basic palette. There is also a problem with distortion when three-dimensional base maps are used to display pottery distribution (e.g. http://classics.lsa.umich.edu/projects/prap/3ddens.gif) – the data are distorted by a sideways point of view and it could be argued that the technical magnificence of the background detracts from the important data itself. However the graded shades of grey representing the topography in the plan views of the survey area are very effective (e.g. http://classics.lsa.umich.edu/projects/prap/paldens.gif).

**Re-presentation**

Collecting all the preliminary reports together like this allows instant access to the whole body of work produced, other than those pieces that have been formally published in journals or books (http://classics.lsa.umich.edu/PRAP/html/Publications.html). This enables a reader to trace the development of the project from its conception to the point of final publication and build up their re-presentation almost as project members did. Reverting to traditional publication for the final report denies internet users an overall, detailed synthesis of the project, leaving them to create their own from the large body of data on the web site.

## 4.10 Northern Albacete Survey

**Gilman, A., M. Fernández-Miranda, M.D. Fernández-Posse and C. Martín**

1997 Preliminary Report on a Survey Program of the Bronze Age of Northern Albacete Province, Spain. In **Balmuth, M.S., A. Gilman and L. Prados-Torreira (eds)** *Encounters and Transformations: The Archaeology of Iberia in Transition.* Monographs in Mediterranean Archaeology 7:32-50. Sheffield: Sheffield Academic Press.

**Project**

This survey was carried out from 1988 to 1990 in south eastern Spain with the main aim of identifying possible political or economic centres – Bronze Age sites that might indicate a developed site-hierarchy. They were also interested in the relative size of sites compared to nearby agricultural land; and evidence that the function of a site was dictated by access to

mineral resources (37). The project focussed mainly on the location of sites through the study of maps, place names and extensive survey. To assess the validity of the extensive approach, intensive survey was carried out in 1990 (38). This control satisfied them that the extensive survey had identified almost all of the large Bronze Age sites in Northern Albacete.

**Presentation**

The distribution of sites in the survey area is distorted on the map presented (Fig. 4.2) – site numbers are more prominent than the crosses indicating the sites. In some cases the label is twice the size of the cross. Sketch plans (Fig. 4.3, 4.4) are clear; crowded contours are rendered in dotted lines that give a graphic indication of the sites' topography without obscuring the archaeological evidence also displayed on the plan.

**Re-presentation**

The report gives a brief summary of the evidence found for a very narrow social and temporal subject, creating the beginnings of a close-up picture of higher status Bronze Age in Albacete province. Two unusually large sites are highlighted (41) but these are not taken to be evidence of a site-hierarchy. Of the main mineral resources in the area it seems possible that salt, rather than copper, had a greater effect on settlement form, but the evidence is scant. The report shies away from too much interpretation as is to be expected in a preliminary report; making only brief, provisional assessments of its data (40) it is content to raise more questions than answers (43).

## 4.11 Sydney Cyprus Survey Project

**Given, M. and A.B. Knapp**

forthcoming *The Sydney Cyprus Survey Project: Social Approaches to Regional Archaeological Survey.* Monumenta Archaeologica 22. Los Angeles: Cotsen Institute of Archaeology, Monograph Series.

**Project**

The Sydney Cyprus Survey Project (SCSP) studied an area in the north central foothills of the Troodos Mountains on Cyprus between 1992 and 1997 (9). This inter-disciplinary project intended, from the outset, to study its chosen region as a whole – as a total

landscape. Recognising the inseparability of a landscape and its inhabitants, the project aimed not only to identify archaeological sites but, importantly, to study their distribution and the changing relationship between urban, agricultural and industrial elements over time (9-10). The project had an off-site focus and used intensive survey techniques

**Presentation**

It is difficult to comment in detail on the overall presentation of the SCSP monograph, working as I am, with a draft copy, but black and white pictures and graphics will be integrated into the text as close to their first mention as possible. The coloured analytical maps will be grouped together in one section of the monograph (M. Given p.com.), which will hamper efficient reference between them and the relevant text. Line drawings show signs of having been finalised for publication on a computer, which produces crisp, clear illustrations but the multitude of layer types in some section drawings and a desire for internal consistency have resulted in a distracting, vibrating effect (e.g. Fig. 4.37).

Teams recorded archaeological survey units on enlarged and rectified details of aerial photographs (48). In the publication similar photographs are used to create the analytical maps displaying unit location and pottery densities (e.g. Fig. 4.29, 4.31). This technique neatly integrates the landscape, field methods and the information collected into a single intuitive image. A problem does arise when the pottery index is so large that its graphical representation obscures the unit to which it applies and, on occasion, adjacent units too (e.g. Fig. 4.88). This only restricts the presentation of individual units, which is perhaps beyond the remit of these graphics and even the monograph as a whole – in displaying distribution across the landscape they work well.

**Re-presentation**

Having established the project's credentials and discussed its methodologies in Chapters 1-3, results from a selection of the Special Interest Areas (SIA) and Places Of Special Interest (POSI) recorded comprise Chapter 4. Chapter 5 consists of catalogues of selected pottery, chipped stone and 'special finds' and an illustrated discussion of archaeometallurgy finds and analysis results (223). The pottery and special finds catalogues' contents can be cross-referenced by period and use in Appendix 3 (337-342). Chapter 6 presents a diachronic study that endeavours to place Cyprus, and wherever possible the SCSP area of study,

against a much wider social, political and economic background (263). Finally in Chapter 7 the presentation returns to its research goals; focussing once more on the survey area it presents a discussion of the roles and findings of geomorphologists and geobotanists in the project and discussions of the industrial, agricultural and ideational landscapes recorded by the project (298). This comprehensive presentation of data and interpretation allows readers access to the information and the process behind the conclusions. A deeper re-presentation will be possible for readers by referring to the project's database, which is to be made available on the internet through the Archaeological Data Service (http://ads.ahds.ac.uk) (223).

# 5 Discussion

- Access
- Communication
- Limitations

If there is any overarching motive behind the presentation and re-presentation of landscapes, it must be that survey archaeologists wish to make their work available to the outside world. The archaeologists' work is not complete until a re-presentation has been produced. Availability however, entails more than publication; it demands more than just the physical existence of an archaeological survey report. Data within a publication must be accessible to readers so that they can digest it, appreciate the author's re-presentation and possibly even develop their own. The first section of this chapter examines the presentation of data in survey reports and its impact upon the accessibility of information contained in them. The discussion is illustrated with extended examples drawn from the reports in Chapter 4, where this idea was touched on but not developed.

The second section of the chapter is concerned with comparison. It is only possible to compare work that is freely available; if data within publications is easily accessible then different archaeological projects, different regions, methods and archaeologists, if not archaeologies can be compared. The comparison of different landscapes makes it possible to build up pictures over larger areas – on a national, or even international scale. It is clear, even from the sample offered in Chapter 4, that the range of styles and approaches applied to the publication of regional survey data makes simple, direct comparison almost impossible. The constraints of space, technology and cost and their relevance to the different forms of publication represented in Chapter 4 are discussed in the third section of this chapter.

Given the difficulties of meaningfully comparing such diverse bodies of work, perhaps the archaeological survey community should consider the possibility of standardisation. The chapter closes with a brief consideration of the practicalities and possible affects of standardising procedures in field survey work and its subsequent reporting.

## 5.1 Accessibility

Easy access to data is the responsibility of their creator and the writer of any report (Barker 1995b: ix). Ideally a report will present information in such a way that each individual element is clear on its own, but combines with all the other elements of the publication to form a coherent whole. How that accessibility is, or is not, achieved is the concern of this section – how words, numbers and pictures are combined to help readers extract the maximum possible information from a publication. Readers, of course, also have a responsibility not to expect to be spoon-fed archaeological answers, but their main effort would, ideally, be expended in the interpretation of aims, methods and results and not in finding and extracting them from a confusing background – the onus for accessibility lies with the author.

**Format and Structure**

Perhaps the rawest forms of data presented by any project are lists such as site gazetteers and pottery catalogues. Of the final reports studied in Chapter 4, two present them separately (Barker 1995b; Mattingly 1996). Given and Knapp (forthcoming) incorporated their gazetteer and catalogues into the single volume of their monograph, whilst Cherry *et al.* (1991) integrated their data further still, listing selected artefact evidence under each site entry in the gazetteer with a view to providing an overview of evidence found across the whole survey area (Cherry *et al.* 1991: 70). The reduced data in this combined gazetteer/catalogue still gives sufficient detail in its overview to support the authors' re-presentation and enable readers to create their own. Detailed study at artefact level would, in all cases, require the greater detail offered by a project's archive, which both ULVS (Mattingly 1996: 5) and SCSP (Given and Knapp forthcoming: 223) explicitly locate for their readers.

There is little to choose between these three approaches. The two volumes of the ULVS study allow readers to keep data visible in one whilst studying a synthesis in the other. The second volume also allows the data to be studied in isolation, but so too does the level of integration in the Sydney Cyprus Survey Project's (SCSP) monograph (Given and Knapp forthcoming), with the possible advantage of involving just one book. On the other hand two volumes may reduce the size of any one volume, although this is not borne out by the

ULVS report (Barker 1996; Mattingly 1996). For the Biferno Valley project the division into two volumes was a financial consideration (Barker 1995b: ix). Despite such varied approaches to their raw data the four final reports present their syntheses similarly – after introducing the project and its aims the chapters are laid out chronologically. Discussions at the end of each report bring together the disparate chapters and draw conclusions in the light of the project's aims and research questions. Clearly the content and treatment of their subjects is different in each case, but in their structure we can see clear signs of a standard approach to reporting in these publications.

The preliminary reports follow the same broad pattern of subject, context, methodology, results and conclusions mentioned above, but do not, in general present a large amount of data. The Agro Pontino report (Voorrips *et al.* 1991) is slightly different. Most of the standard elements – aims, methods, results and interpretation – are present in the ten papers that make up this volume, but there is no simple progression from beginning to end and no overall assessment of the project's work. Although associated to the others, each paper can stand-alone. Unusually for a preliminary publication, the Albacete report (Gilman *et al.* 1997) prints a full list of sites recorded during the project in an appendix (46-50) giving readers data that expands the distribution map (Fig. 4.2) in the body of the report. The Pylos Regional Archaeological Project (PRAP) (Davis 1996) presents its gazetteer on-line so that even the preliminary reports, which make up the web site, can be studied with reference to the full set of data.

**On-line publication**

Publication on-line has the potential to liberate authors in many ways. It is unlikely that the content of reports will change, but they could be presented in any number of different ways and offer more, perhaps all, of a project's data to the reader. The Çatalhöyük web site (Wolle 2001) certainly achieves maximum exposure – even posting individuals' diary entries on the site.

On-line publishing offers the opportunity to abandon the strictly linear presentation of a project – after all printed archaeological reports are seldom read directly from front to back as the construction of books might suggest, or even seem to expect. On-line, it can be possible to jump easily from place to place in a report, although most of PRAP's reports

appear as single, long files of scrolling text that force the reader into a linear approach far more efficiently than do a series of shorter pages, bound at one edge and presented in a book. One or two of the reports posted on the site, the preliminary reports for 1993 and 1994 for example, have active links that take the reader directly to a section of text or an image. These are in the minority however, and in truth only allow short spurts of non-linear reading – the reader must always return to the list of contents, at the top of the document, before venturing out again. This is not what I would call browsing, a word I associate closely with a non-linear approach to reading and one that is sorely abused by the computing community. The constant requirement to return to the starting point is largely a shortcoming of the technology rather than a failing of the PRAP site, although there are ways to overcome it – at least partially.

Warren's (1997) article on coastal Mesolithic Scotland offers readers the chance to define their own route through the information he presents with a series of hypertext links. In fact, he is only offering them a choice of paths through a network that he has defined; they have free run through a maze of his design. From each point in the article a reader can only move in one of a number of prescribed directions. This comes closer to browsing through a book than the PRAP approach but lacks the true random nature of flicking from page to page in a publication. Warren's approach does not in any case appear to have been widely adopted, the majority of articles in Assemblage, and also in Internet Archaeology, still adopt a fairly traditional layout. Perhaps authors do not want readers to take a random, non-linear approach to their work, or perhaps the technology is still beyond most archaeologists' skills.

**Pages**

The look of words on a page will have some bearing on the ease with which a reader can gain access to the information they contain. Large blocks of text intimidate a reader; there are many pages in the Keos report (Cherry *et al.* 1991) that would be a forbidding prospect were it not for the thin white line between the two columns – particularly when two such pages face each other. Columns can break up the text on the page and it is also possible, if a flexible approach is taken to their format, that they make it easier to insert graphics and pictures closer to the relevant discussion than on full-width pages. A single map or drawing often spans two columns (e.g. Gilman *et al.* 1997: Fig. 4.1; Baird 1996: Fig. 3.2) but it is

rare, if most pages are printed across the full width, for a single page to be divided into columns to accommodate a graphic (e.g. Loving and Kamermans 1991b: 112). Each page in Tufte's books (1983; 1990; 1997) is divided into two columns – the left hand column contains the body text, the right hand one, which is half the width is used for notes and references. Graphics – of which there are many – know no boundaries and, whilst normally confined within one column or the other do, appear anywhere on the page, crossing over whatever boundaries the design demands.

Two columns of course means twice as many lines on the page, so the possibility of words that are split between lines, breaking up the flow of ideas, is doubled. Shorter lines are said to be easier to scan, but long sentences spread over several lines can be difficult to follow. The need to cite bibliographic references using, in all the reports studied, the Harvard referencing system can exacerbate the problem of short lines in columns. Extended referencing can cause sentences to stretch over even more lines, making them ungainly and awkward for readers to assimilate. Other areas of archaeological writing suffer from this far more seriously than do field reports, but this example from Cherry *et al.* (1991: 14) begins to demonstrate the problem of a "linearly organized flow of words, folded over at arbitrary points (decided not by content but by the happenstance of column width)" (Tufte 1983: 178).

> tural systems." The areas studied by many Mediterranean surveys have indeed been framed in explicitly cultural terms, focusing, for instance, on the territory of a Greek polis, on the economic hinterland of an urban central place, or even on an entire Bronze Age kingdom. In general,

In Cherry *et al.*'s report becomes:

> tural systems." The areas studied by many Mediterranean surveys have indeed been framed in explicitly cultural terms, focusing, for instance, on the territory of a Greek polis (e.g., Gallant 1982, 1986; Lloyd et al. 1985) on the economic hinterland of an urban central place (e.g. Moody 1983, 1987; R.J.A. Wilson 1981), or even on an entire Bronze Age kingdom (McDonald and Rapp 1972). In general,

Two words are split between lines and the referencing extends the sentence by about two and a half lines.

I have mentioned the flexibility that columns can give when images have to be integrated into text, but there are times when even this is not enough and an image has to be presented on a landscaped page. This is another barrier to steady flow of data requiring the reader to turn the book back and forth between the image and the associated discussion. This is an inconvenience, but sometimes the data demand it, and the only way to present them is to print them on a landscaped page. However, steps can be taken to disrupt the flow as little as possible. When Figure 3.12 (Barker 1996), a combined stratigraphic and pollen diagram is viewed on a portrait page the plant names are all upside down.

This is not a huge failing but it is an unnecessary distraction for the reader and makes me think that the graphic was created in isolation. It was designed to display certain data and was arranged on the page to suit that purpose, without taking into account that it would be rotated 90 degrees anti-clockwise for publication. Printing the plant names the other way up – a small adjustment – would mean that the pollen diagram could, if preferred be read without turning the page and the data could flow without distraction. A slight problem arises with this solution. When the page is turned to a landscape view, the plant names read downward, which is possibly not quite so easy to read as in the original orientation. Pollen diagrams are among the most difficult graphics to present and, clearly, decisions and compromises have to be made, but ideally they would always favour an easier path for the reader rather than for the author.

**Decoration**

The intensity of data in a report needs to vary; whilst it is preferable not to waste space, every square inch cannot carry the same level of information. A picture is generally less packed with specific data than a table or a paragraph of text and it may, to some readers, appear to be nothing more than decoration. This depends upon the level at which readers approach a publication, whether they are pictorially inclined or whether it has even occurred to them that a photograph could carry information that can be extracted and considered alongside the textual and numerical data presented. It is unlikely that a section drawing or an artefact photograph would be taken to be decorative, but a photograph of work in progress or a landscape might be passed over without a second thought. Whilst not necessarily duplicating data in less obviously technical pictures an author would do well not to rely upon photographs alone to convey data of a vital nature. Access here is in the

hands of the readers, prompts in the text might take them to a photograph but it is up to them how much they take out of the picture.

If purely decorative pictures are to be discouraged, so too should unnecessarily decorative elements on technical graphics – the footprints, along transects across the Agro Pontino survey area (Loving *et al.* 1991: Fig. 3) for example. It does not do to be too solemn about these things and there is nothing wrong with the footprints, but perhaps they are more appropriate on the front cover of the report rather than on a map that already has several distracting designs describing the ground conditions.

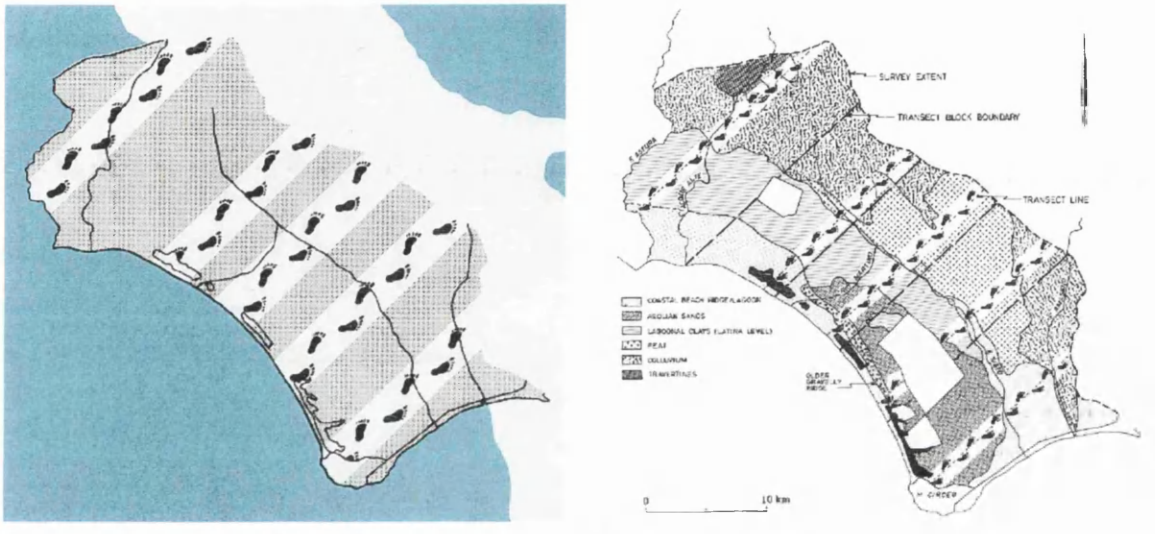



**Figure 13. The appropriate place for feet. (Voorrips *et al.* 1991: Front Cover; Loving *et al.* 1991: Fig. 3)**

Some of the maps and diagrams produced by SCSP (Given and Knapp forthcoming) are perhaps more open to accusations of unnecessary ornamentation. At first glance it is all too easy to dismiss them as brightly decorated photographs, but the topographical map of SIA 2 (Fig. 4.9) locates survey units and displays to a reader the changing nature of ground cover and use across the whole area far more directly than if the information had been encoded on a map. It could be


**Figure 14. Example SIA Map**
**(Given and Knapp forthcoming: Fig. 4.9)**

suggested that a map featuring individual trees displayed too much unnecessary detail, but they identify not only cultivated land but also give some idea as to the type, level and density of that cultivation. The data presented on the page are clearly visible, set within the studied landscape and could, with very little difficulty be identified were the reader to be in the field – and perhaps gives the reader a closer idea of the working methods of the archaeologists who used photographs similar to these to navigate during the survey (Given and Knapp forthcoming: 47).

Data on the analytical maps are a little less immediately available although in the monograph the collected graphics are to be preceded by an explanatory note. (M. Given p.com.).

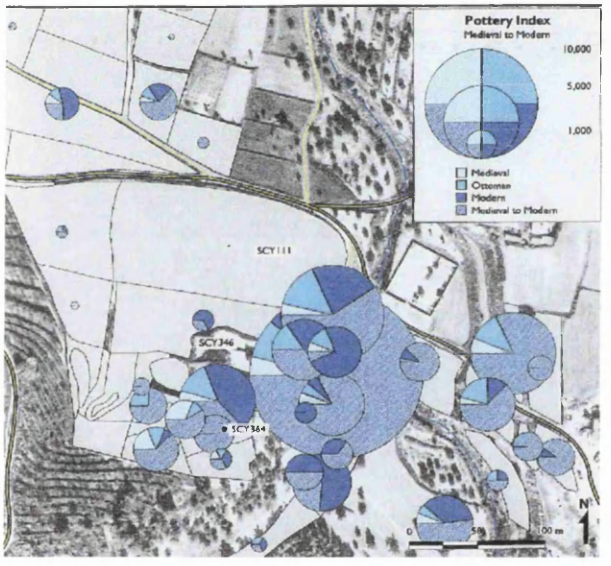



**Figure 15. Example Pottery distribution map (Given and Knapp forthcoming Fig. 4.62)**

The pie charts indicate the value of the pottery index (Given and Knapp forthcoming: 72) and so the density of the pottery, but the larger pie charts cover a greater area on the map than the unit does on the ground, thus obscuring data. Despite this slight lack of detail they do work as distribution maps and artfully combine a temporal comparison that neatly avoids, for the period groupings the authors have chosen, the need to jump from one distribution map to another. The figures use bright colours against the monochrome background – had the authors used shades of grey in the pie charts they would have been left with murky diagrams and a substantial loss of data. Alternatively they could have simplified the base map – abandoning the photograph and again losing data. These graphics, despite first impressions, do not appear to be needlessly decorated but it would be interesting to see four smaller, simpler graphics, each showing the distribution for one of the four periods that are combined on the full colour map, to see how the two methods compared to one another. Presumably the authors made this comparison and chose the most accessible, communicative representation for their data.

**Fields of Grey**

Given and Knapp (forthcoming) elected to use colour in their graphics but this is still the exception rather than the rule. ULVS is the only other studied report to use colour – as these are the two most recently published final reports they are perhaps indicative of a gathering trend in archaeological publishing. Other reports have used shades of grey to indicate differences on graphics, but only so many shades of grey can be differentiated on the page, which has forced some authors to resort to other shadings.

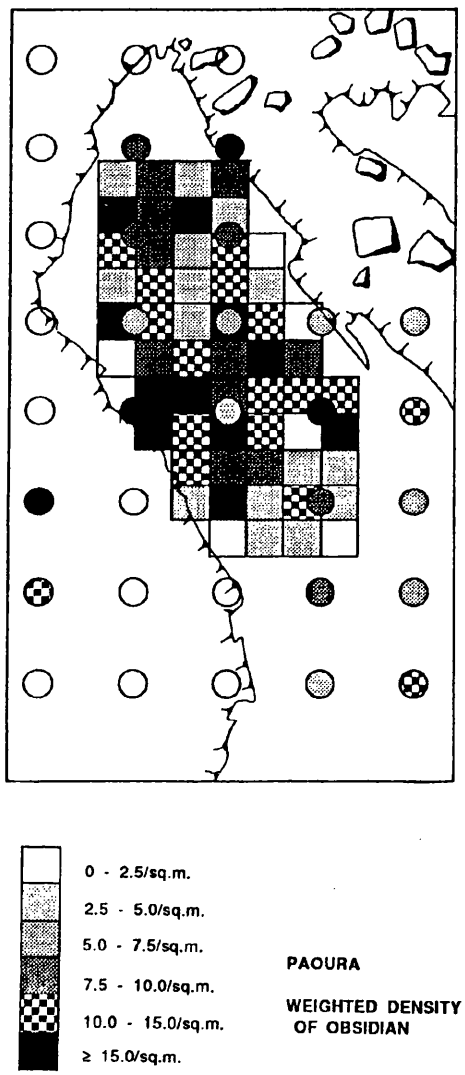



**Figure 16. Obsidian distribution diagram (Cherry *et al.* 1991: Fig. 8.6 detail)**

The authors' needed four distinct shades of grey to complete this graphic – black and white were used for the extreme values. But is seems as if their palette would only stretch to three and they were forced to improvise for the fourth. Their choice of chequered squares (10.0-15.0/sq.m.) distorts the whole diagram and blocks the reader's access to the true content of the graphic. The chequered pattern not only attracts a reader's eye because it is so different but it vibrates and distorts the whole image. It is possible that this is a limitation of the printing process – none of the other reports try to represent this many gradations, with the exception of ULVS on their coloured graphics (e.g. Barker 1996: Fig. 6.16). Elsewhere however, (e.g. Cherry *et al.* 1991: Fig. 12.7) only three shades of grey were required and yet the chequered pattern was still used for one of them.

When grading shades of colours like this – monochrome or polychrome – the best results are achieved if there is an internal consistency to the series – so that no single shade stands out from the rest. A series consisting of chequers of differing size to indicate density change would have worked for the Keos graphic. Whilst hideous to look at, it would have had an internal consistency that made more sense than a mixed series.

**Embellishment**

There is a temptation when drawing graphics to draw more than is strictly necessary. Graphs are particularly prone to this and are often:

boxed in completely; extravagantly labelled; or they duplicate data.

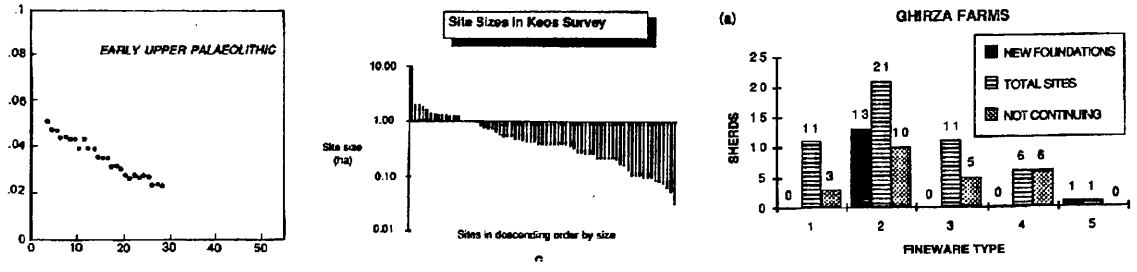


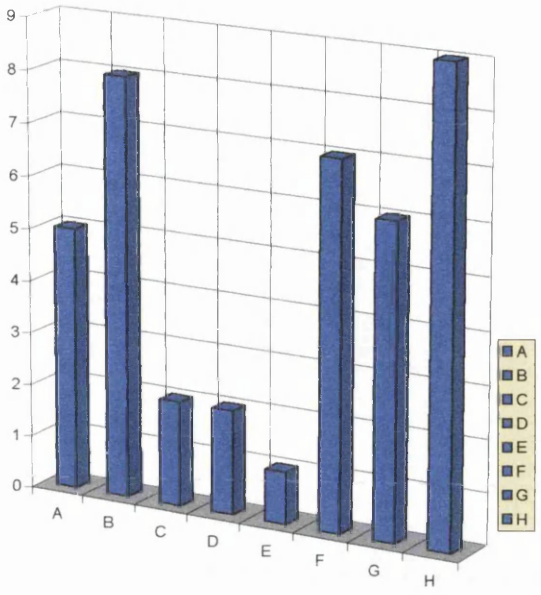

**Figure 17. Some problems with graphs**

**Details from (Loving and Kamermans 1991b: Fig. 1; Cherry *et al* 1991: Fig. 2.3; Barker 1996: Fig. 5.42)**

Most graphics use ink that does not impart data but which is necessary for the construction – the graphical apparatus (Tufte 1983: 91). The comparison between data-laden ink and ink used in the structure or embellishment of a graphic is what Tufte calls the data-ink ratio (Tufte 1983: 93). This should be as close to one as possible – an almost impossible ideal.

Whilst ideals have to be applied with flexibility and we will always have to accept compromise. It is surprising how much can be removed from many graphics without losing, but improving access to the data.

The speed with which computers produce graphics makes them very tempting to the archaeologist manipulating large data sets, but computers have a tendency to add embellishment as a matter of course. Archaeologists have to train their equipment to produce simple, accessible graphics. I produced chart 1 in figure 18, from some dummy data in a spreadsheet, with a single keystroke. It took a further fourteen operations to render my data into the simpler, more efficient chart 2 with an increased data-ink ratio.



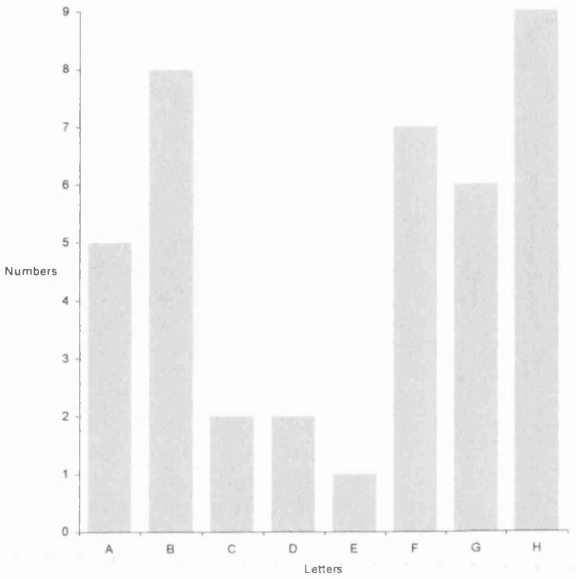




**Figure 18. Dummy data – Chart 1** **Chart 2**

Of course having made the conversion once, a simple fifteenth operation ensured that I would never have to do it again. We would all do well to remember that computers are tools and it is us that should have control over what is produced – this is not always easy when software and computer designers see embellishment as a selling point seldom. They promote the idea that numbers are tedious and require ornamentation to bring them to life. But, as we have seen this cosmetic decoration, this chart-junk frequently distorts data and will never compensate for an underlying lack of content lurking behind it a contempt for both the information and the readers can be perceived (Tufte 1990: 34).

**Conclusions**

Many of the points covered in this section can be closely associated with improving technology, which has, on the whole, improved the presentation of data. A simple comparison between the distribution diagrams of Bintliff and Gaffney (1988) and Given and Knapp (forthcoming) highlights the enormous leap forward taken by methods of manipulation, display, printing and, I think, the accessibility of data. But technology does not necessarily improve accessibility – as some of the embellished graphics (figure 17) show, it must be handled with care. Even on-line publication is not an automatic answer to the strictures of traditional publishing. It might have the potential for reaching many more

readers, but this does not guarantee that they will all find a presentation intuitive – whatever the medium, the onus remains with the author to ensure that data are as accessible as possible.

This section has concentrated on the presentation of numbers and pictures, only discussing the structural aspects of words on the page. This is not least because writing style is a personal, and often fiercely defended attribute – but style cannot be entirely ignored. The importance of choosing the right words for the topic and the readership; striking a balance between specialised vocabulary and impenetrable jargon were discussed in Chapter 3. The voice that emerges from a report as a result of those choices will have major affect on the ease with which it can be read and understood. Ammerman's (1995) paper is probably the only report considered here to have a truly authorial voice. The paper is written by him alone and, unless the *Journal of Mediterranean Archaeology*'s house rules dictate a writing style, it will be couched in terms that he considers best suited to the task. All the other reports are the product of more than one author or are included in an edited volume where the owner of the editorial voice is less clear than the single authorial voice. In the cases of multiple authors the voice, presumably, emerges from compromise or the preferences of a senior partner. Papers in edited volumes presumably take on at least a patina of the editor's style, even if individuality can be discerned by close study. Contributions to monographs are often substantially re-written by the overall authors (A.B. Knapp p.com) to give a volume an overall voice and cohesiveness to present the project as a whole rather than as a disparate collection of unconnected pieces. So that, whilst individual identities are to some extent subsumed, an overall identity for the project is discernable.

## 5.2 Comparisons

If we accept the imperative of publication, then we must also accept the inevitability of comparison. Every archaeological project communicates its activities and conclusions in a formal, final report – the survey's work is placed in the public domain. Given a selection of survey reports it is unlikely that a reader will not draw comparisons between them. Just what is compared will depend entirely upon an individual's interests, but it could be any combination of the elements of a project and its subject. Comparison can take an isolated survey and give it context against a wider background. Just as any single piece of evidence has more meaning when it is viewed as part of the whole project; so a project takes on more relevance when viewed in relation to other – similar or contrasting – projects.

Survey archaeologists build up a picture of a whole area by studying samples taken from the landscape. So, by comparing, and contrasting, different surveys it might be possible to build up a picture of much wider areas. But, just as it is dangerous to make too many assumptions about a region from a small sample of data so archaeologists should be wary of filling in the gaps between any surveys they compare. By comparing surveys – treating each as a large, complex sample of the landscape – it is possible to combine the diverse findings and study them with respect to the wider world. Nothing happens in isolation and we should not try to study it as if it did. A survey area is an artificial entity (Given and Knapp forthcoming: 40-41) and its boundaries only define the limits and, possibly, the limitations of a survey.

This might suggest that it is the re-presentation of landscapes – the survey's final image – that is compared, but this is seldom the case. Perhaps this low incidence of comparison is because of the relatively small number of projects that have so far reached final publication (Mattingly 2000: 5). Mattingly is discussing survey methodology, but this lack of publication would limit the comparison of re-presentations to the same degree. Presumably the interim and older reports that lack depth and self-critical awareness have not produced re-presentations that could be reliably compared.

Alcock (1993: 33-92) overcame many of these problems in her re-presentation of a Greek rural landscape. Concentrating on the broad picture she combined the results of several regional survey projects conducted in different parts of Greece. The diversity of the projects she studied meant that direct comparison was not feasible. They ranged in coverage from 2.1 $km^2$ to 5000 $km^2$; in intensity from systematic, quantified collection to haphazard site collection; and in publication date – some final, some preliminary – from 1966 to 1991 (*ibid* Table 2). Interpreted as a body, with reference to textual as well as archaeological evidence (*ibid* 33) the projects give one another a far broader context than they have alone. Individually each was a valid piece of work dealing with its own research questions, with its own internal context; combined with each other they enabled Alcock to build a diachronic picture of settlement trends across the whole province, from Archaic to Roman times (*ibid* 34). In order to fully understand each project's results, however, she had to understand their methods and make allowances for the differences. So, data that had already been re-presented by a project was re-presented one more by Alcock.

**Direct Comparisons**

| **Keos** | **Albacete** |
|---|---|
| Final report | Preliminary report |
| Single volume monograph | Paper in collected monograph |
| Single season | Three seasons |
| Intensive survey | Extensive survey |
| Multi-period | Bronze Age |
| All social strata | Political and economic centres |
| Amorphous survey area | Rectangular survey area |
| 18 $km^2$ | 10,000 $km^2$ |
| 15% of island | 50% of province |
| Northwest Keos | Northern Albacete |
| Island | Landlocked province |
| (Cherry *et al.* 1991: xv; 6, Fig. 1.1; 14; 16) | (Gilman *et al.* 1997: 33; 37, Fig. 4.1; 38) |

**Table 1. Direct Project Comparison**

Direct comparison of surveyed subjects is seldom possible. It is only with reference to a project's methodologies that its results make sense; it is impossible to separate the subject

from the project. It is in the nature of survey archaeology to be aware of methodology, which perhaps makes survey archaeologists more aware of the need for caution when comparing notes, but it is dangerous to assume too much comparability between projects (Mattingly 2000: 5). The wide variety of projects, approaches and methodologies makes it important always to compare with open eyes; seldom is like compared with like.

The somewhat perfunctory juxtaposition laid out in table 1 highlights differences between the Keos and the Albacete survey projects and is surprisingly informative. Although nothing gives a direct indication of their results or conclusions, each list is a small re-presentation of a project, covering aspects of location, size, methodology and presentation. They allow a superficial comparison of the projects that highlights points that need to be taken into account should a broader comparison be considered. They do not, however, contain sufficient detail to build comprehensive pictures of the surveyed area.

At an even more basic level of comparison, the projects begin to become indistinguishable. Of the ten projects in Chapter 4 only Ammerman (1995) makes no direct reference to past settlement and land use in his stated aims. He, of course, was interested in current land use. No matter that re-presentations and aims are good starting points it is clear that no comparison of surveys can ignore methodology for very long. Even whilst talking about projects as complete bodies of work and comparing their findings it is impossible to ignore the way in which data were gathered. Constant attention to detail is needed to notice when differences occur between surveys that initially appear alike. Mattingly's (2000: Table 2.1) data on collection strategies shows just how much variety is possible in one small, but important detail of methodology. A similar collection could be extracted from Chapter 4. For example, on Keos walkers, 15m apart surveyed in contiguous units that usually coincided with modern fields (Cherry *et al.* 1991: 22). At Agro Pontino, by contrast, 500m wide transects were surveyed by walkers approximately 10m apart (Loving and Kamermans 1991a: 80-81). SCSP's transects were 500m apart, 50m wide and were covered in two passes by walkers 5m apart (Given and Knapp forthcoming: 46-47). This is an incomplete comparison but goes some way to confirming the confusion of minor detail that surfaces when survey techniques are compared.

Three of the projects whose reports are studied in Chapter 4 made use of a GIS – PRAP, ULVS and SCSP. Perhaps the profusion of acronyms is significant. GIS is a useful tool for survey archaeologists – albeit a relative newcomer to the discipline (Gillings and Mattingly 1999: 1). In the field and in the analysis of a project's data its four main functions – the input, storage, manipulation and output of data (Fisher 1999: 5) – are exercised. In the three archaeological reports mentioned above, we really only see the result of the output of data. The images are no longer, strictly speaking, part of a GIS; they are echoes of it. Even the maps on the PRAP website are just images taken from a GIS – there is no longer any scope for interrogation of the data behind them. So, whilst noting the software used by each project below, it is impossible to assess the relative capabilities of the GIS from the evidence presented. Indeed, such an assessment would be beyond the remit of this dissertation. All we can do is compare the 'pretty maps' (Fisher 1999: 8) that each project produced using their GIS, and consider their relative merits as purveyors of information.

| | **PRAP** | **ULVS** | **SCSP** |
|---|---|---|---|
| **Software** | ArcInfo | IDRISI | MapInfo |
| **Scale (approx)** | 1:125000 | 1:1000000 | 1:3000<br>1:4000<br>1:125000 |
| **Dimension of map /km (approx)** | 20 x 12.5 | 125 x 115 | 0.5 x 0.5<br>0.5 x 0.5<br>15 x 6 |
| **Data presented** | Sherd counts | Site Distribution<br>Site Density<br>Site Density Change | Pottery Density<br>Survey Unit Location |
| **Data format** | Large dots | Shaded grid squares | Survey unit outlines<br>Pie charts |
| | (http://classics.lsa.umich.edu/projects/prap) | (Barker 1996: 45, 159-190) | (Given and Knapp forthcoming: 83-222) |

**Table 2. Comparison of GIS generated maps**

ULVS employs two basic designs of map – site location and site density change. Individual sites are sorted by category – *gsur,* settlement, olive press and so on and marked on maps of the survey area. On some of these site-distribution maps, the colours and symbols are difficult to read, although on the whole they are very effective. Site density and density changes are indicated by colour-graded squares, each of which is 25km$^2$. These work well and the wadis, always marked in white, stand out well against the changing backgrounds. PRAP's presentation is perhaps the least successful of the three, if only because it does not

seem to exploit the full potential of displaying images on-line. These are fairly unsophisticated pop up pictures and the colours used to represent sherd numbers do not readily suggest an increasing or decreasing range of values. SCSP's pottery counts are manipulated and displayed as pie charts on large-scale aerial photographs of the survey units. At a smaller scale, a similar method is used on maps of the entire survey area. In both cases each pie chart each displays four periods of pottery and occasionally seem rather garish.

This may seem a somewhat cosmetic approach a technical tool, but as I have said the maps are our point of contact with it in the surveys' reports. If they fail to present data in a format that is easy to comprehend they have failed in their task. The data from these projects are too diverse and displayed at such differing scales that direct comparison of results is impossible. However, interestingly, the maps do display, at a fairly basic level, the different survey methodologies employed – ULVS's broad coverage, PRAPS different areas of survey and SCSP's transects all stand out vividly in the presentations of their results.

The presentation of a survey report is most often the first point of contact readers will have with a project, and first impressions are important. Something as simple as an incongruous layout or inappropriate format – be it monograph, article or web page – will affect the level of attention paid to a report. This in turn will affect the quality of data extracted and their standing in any comparisons drawn. It is through their reports that most projects are compared – they are the public forum for data and interpretation – so there is a strong case for spending time and energy to ensure that they are efficient. Essentially they need to present methodology, results and interpretations clearly and explicitly so that they can easily be turned to research questions other than those envisaged by the original project (Alcock 2000b: 265).

**Conclusions**

So it is possible, essential perhaps, to compare selected elements of different survey reports without reducing them to low level comparisons such as the one between Keos and Albacete in table 1, which are of limited use. It seems however, that it would not be helpful to draw comparisons between single elements of projects. Archaeological survey is a multifaceted discipline, which at once makes it more interesting and more difficult to

compare directly between projects. Surveys can no longer be seen in terms of binary opposites – extensive/intensive, in progress/completed – but rather as complex entities that require more than a simple checklist to describe them. In Alcock's (1993: 36) case she referred to the projects' chronological schemes as well as to site distribution. Without understanding their treatment of time she could not understand the trends in their data. At a more detailed level the counts of sherds collected by two surveys are not compatible without reference to the projects' collection strategies. Indeed the majority of comparisons between projects would be meaningless without reference to the methodology. Comparison is not an easy task. There is no simple formula to help us to interpret data (Bintliff 2000: 200), so we should not expect a simple formula that compares different surveys and their reports to exist either.

## 5.3 Constraints

The practical constraints of space, technology and cost will always affect the content of a report, whether it appears as a monograph, a collected paper, a journal article or a web site. The extent of this affect will depend upon the mode of publication and the aspect of the publication that is under consideration – for example space is more of an issue in a journal, the greater space available in a monograph incurs a higher price and technology can provide more space at a lower price, but usually in a different format. There is no avoiding the question of finance, but its influence is so complete that there is little point in discussing it in abstraction, beyond noting that physical space and production values in traditional publishing cost money. The larger a report is and the more sophisticated its contents, the more expensive it will be to produce. This of course will have repercussions – an expensive report is likely to enjoy a smaller distribution than a cheaper one, so limiting the availability of the data within it before the question of its accessibility is even raised. Printing technologies that allow luxuries such as colour pictures may be coming down in price, but it can still be difficult to find sufficient funds to produce a final report that exactly matches its authors' vision (M. Given p.com.).

It seems almost superfluous to say it, but the larger a report is, the more information can be packed into it. So, a large monograph would be expected not only to be more comprehensive in its interpretation, but also to include more supporting data than an small report – interim or final – that appeared in a journal or a collection of papers, and yet the Northern Albacete survey report includes a full site gazetteer (Gilman *et al.* 1997: 46-50). The PRAP web site (Davis 1996), whilst only presenting preliminary reports is able give readers access to the project's full data set – a prime example of technology increasing the space available and enhancing the possibilities for further interpretation of the project, by outsiders.

The internet offers the potential for far more innovative and extensive publication than do traditional methods, but it faces two significant problems. Firstly, the academic community has yet to wholeheartedly embrace on-line publication as a legitimate venture – my feeling, however, is that the time is not far off when it will. As more projects invest more time and money into increasingly sophisticated, comprehensive and professional looking web sites,

so their creators – or at least those that generate the content – are likely to expect that their work is given the same credence it would receive if it were produced on paper. The success of journals such as Internet Archaeology would also seem to suggest that acceptance of electronic publishing is growing.

The second problem faced by the internet is one of curation – data, once committed to paper, are relatively stable and, fire or flood aside, can be expected to persist without significant human intervention. Digital data, stored on-line, by contrast are in constant need of attention as technology is updated or improved and so are always vulnerable. A single computer problem can reduce the readership for a project or its data from universal to nil in an instant. Data can just disappear, albeit not necessarily permanently, as if all the copies of a printed monograph suddenly vanished. At the time of writing, the full set of data promised on the PRAP web site is unavailable due to one such update (J. Davis p.com.). Despite these risks, on-line archives are becoming more flexible and more accessible than microfiche sheets included in a monograph. They can also be made available as, most of the time, with PRAP before the final report is even published. Centralised repositories of data such as the Archaeological Data Service (ADS) are perhaps the answer to problems of instability and the variability of data – they have strict guidelines for the submission of data and a remit to curate such data that they hold and to make it available (http://ads.ahds.ac.uk).

The stability of the printed page may be ideal for the presentation and preservation of data, but space will always be a limiting factor – the ways in which the Keos Survey (Cherry *et al.* 1991), The Biferno Valley Survey (Barker 1995a; 1995b), ULVS (Barker 1996; Mattingly 1996) and SCSP (Given and Knapp forthcoming) have dealt with the problem are discussed under Format and Structure (4.1) above.

Different levels of production are lavished on different levels of reporting – in the current climate a journal article, such as Ammerman's (1995) Acconnia survey report or a collected paper like Gilman *et al.*'s (1997) Albacete survey report would not be expected to have colour illustrations of the standard included in the ULVS (Barker 1996) and SCSP (Given and Knapp forthcoming) reports. But this is a question of technology as much as format, Ammerman's (1995) and Gilman *et al.*'s (1997) preliminary reports are far superior in

production to Bintliff and Gaffney's (1988) preliminary Ager Pharensis report and there is no colour in the two earlier final reports – Keos (Cherry *et al.* 1991) and Biferno Valley (Barker 1995). Such comparisons are perhaps facile – it is self evident that final reports are larger works, with more resources spent on them and so they are more sophisticated than preliminary reports. The advance of technology is evident within the reviewed sample, but not every report exploits those advances to the full. This does not have to be solely the influence of cost or house style, but also be because there was no need for it. One of the most obvious indications of improved technology is the inclusion of colour in a report – but archaeologists need to be wary. Just because a technique is possible it is not necessarily the most appropriate tool for a job. Colour would be wasted, for example, on a simple graphic (figure 17), but is essential for SCSP's sophisticated distribution plots (figure 15).

So, whilst it is worth noting the technological advances, and the weaknesses of older methods of presentation, it is not worth criticising older works because of them. It is not, after all, realistic to expect the republication of a 15-year old project report simply because it would now be possible to produce a smarter looking volume – each report is a product of its project and of its time and should be studied and appreciated as such.

## 5.4 Standardisation

Much discussion on the subject of comparison and comparability seems to suggest that the ideal solution would be wholesale standardisation of archaeological survey and publishing practices. It would certainly go a long way toward removing any question of the reliability of data.

One of the greatest problems Alcock (1993: 49) had to overcome in her re-presentation of the Greek rural landscape was the variety of chronologies used by different projects. This is a serious, but inevitable hindrance to comparison. The dating of pottery is fundamental to most surveys' results, but they cover such wide areas that there is often no established local chronology. If a universal chronology were to be imposed it would have saved PRAP from having to use comparanda from Athens to date some of their material (Alcock 2000a: 3). And SCSP would not have had to develop their complex, but consistent system of chronotypes to established their own chronology (Given and Knapp forthcoming: 27-29).

Bintliff (2000: 201) would seem to advocate standardisation of practice, suggesting that block survey is preferable to transect survey. He sees the almost total coverage achieved on a project like the Keos Survey (Cherry *et al.* 1991: Fig. 3.2) as the only way to gather meaningful data. The spaces missed by thin transects, such as those performed by SCSP (Given and Knapp forthcoming: Fig. 6.3) mean that they cannot hope to gather results that are representative of the landscape.

Any such ideas of standardisation fly in the face of the flexible nature of survey. It is still developing – standards of practice are applied, but with latitude that allows experimentation and improvement. Blanket standards such as a universal pottery chronology would be unworkable and impractical – the range of pottery evidence is too great and too unpredictable to be tied into a single system. The idea of taking a 'cookbook' approach to the discipline is widely decried (Cherry *et al.* 1991: xvi; Mattingly 2000: 5; Alcock 2000: 265), although most are in favour of a general expectation of minimum standards of organisation, methodology, data handling and reporting. Millet (2000: 93) recommends a closer agreement on the terminology used in survey archaeology. It would indeed be an

improvement if all projects used the same term for the smallest unit of ground they surveyed, or for the path that a field walker follows across a field.

Bintliff's views (2000: 201) seem to ignore the flexibility of survey and its capacity to pursue – with different collection and sampling techniques – different research goals. This potential variety hardly makes comparisons any easier, but it does not make it impossible. Standardisation may have advantages if used carefully but complete standardisation of survey archaeological techniques is a fantasy (Mattingly 2000: 5) – and a dangerous fantasy at that.

Standardisation of publication is, in many ways already practiced – publishers and journals have house styles that require a particular page layout or referencing system and, as noted in Format and Structure (79-80) above, all the reports reviewed were divided into similar divisions and arranged in a similar order with only occasional, small deviations. On-line publication, again discussed above (80-81) may result in more non-standard archaeological survey reports, but it is likely that the basic, traditional building blocks of subject, context, methodology, results and conclusions will still lie at their core.

# 6 Conclusions

**Survey and Landscape**

There can surely be no doubt these days that interdisciplinary regional survey is an important technique for studying the archaeology of a landscape. By ranging further than excavators can ever hope to, the survey archaeologist is able to build up a picture of a whole region as it changes over time. The eclectic nature of survey archaeology discussed in section 2.1 – the different approaches and intentions behind it, the unfamiliar terms employed and so forth – may lead detractors to doubt its validity. But it is this very variety, in fact, that serves to make survey archaeologists more alert to the consequences of the techniques they use. Simply picking up ancient material is no longer enough. The choice to plot individual sherds in a field before collecting them (Loving and Kamermans 1991a: 81) or to analyse systematic counts and collections of artefacts from each survey unit (Given and Knapp forthcoming: 67-72) has an impact upon results that needs to be taken into account by archaeologists in their interpretations and by any subsequent readers of their work.

Any survey collection depends upon the field walkers' ability to recognise artefacts – primarily different sherds of pottery – just as any excavation depends upon excavators recognising evidence in the ground they are digging. The need to recognise pottery is vital and errors are minimised in several ways. Total collection is one, but it is time consuming and causes serious damage to the archaeological record – something that survey archaeologists do their best to avoid. Two alternatives are mentioned above, but no matter which is used they all depend upon a field walker's perception of an artefact. Something that is not recognised as having cultural significance will not be collected (Thomas 1996: 61).

The perception of an ancient landscape can begin with the perception of a sherd – a minute detail. The conclusions of a regional survey are built upon thousands of such tiny details and yet when they are combined the ancient landscape can only be perceived in very broad terms. To say that we cannot hope to see a landscape as previous inhabitants saw it is true, if somewhat defeatist, seeming to suggest that it is not even worth trying. Faced with a

modern landscape the archaeologist must first see it, experience it as it is now. Geomorphologists can interpret the current landscape and are able to describe how the landscape might have looked in the past. Combining geomorphological information with survey results, archaeologists can begin to build up a picture of human activity – settlement, agriculture, industry – in the landscape; to perceive the landscape of the past, and perhaps begin to recreate and re-present that past for others.

**Presentation and Re-presentation**

An archaeologist is a communicator – initially with the landscape as data are collected; then with the data as they are interpreted, analysed and presented; and thirdly with the reader, through the proxy of publication. At each communication the subject is re-presented. Within these dialogues – comprising them and resulting from them as they overlap and feed back into one another – are a succession of presentations and re-presentations. They occur as work on a project progresses and more data are collected and each time the archaeologists set forth their work and findings for readers to absorb and interpret for themselves. Interpretation is an inevitable part of this continually subjective process; it is an innate part of any perception – of the landscape, or of an artefact or an archaeologist's report. It is not a flaw in objectivity (Andrews *et al.* 2000: 526) but something that both the wary author and reader always take into consideration.

Every archaeological report is a translation of the available data and, as we can never know what the past was like, we can never be sure how close to the reality of the past it is. Tilley (1989: 278) suggests that no excavation report truly recreates the fieldwork – just as a play is not an exact recreation of a script. This is equally true of survey reports and is merely a reminder that the two things exist in different media – the excavation in real time in the field and the report on paper. It would be impossible and, indeed, undesirable to capture, exactly, a regional survey on paper. It might be possible, although again not desirable, to record every moment of every day, every step taken by every project member, but this would be over reflexive, wasting time, space and energy and still would not recreate the survey. The survey is the means to the end, it is important to know how it was conducted but not in every detail. Once the general methods are established it is the data that are important – with these the archaeologist can settle to the object of the exercise and begin to recreate past landscapes.

Considering a final report, re-presentation occurs on two occasions. Firstly the archaeologist – drawing on past experience, current knowledge and the data collected – creates an image of the project's subject. This is possibly the most important re-presentation; it is the one that will be encoded and preserved in a project's publication. The second is the re-presentation created out of the readers' dialogue with the publication. The trick is for the archaeologist to ensure that readers then have a realistic chance of re-presenting for themselves, from the publication, an image as close to the archaeologists' perceived original as possible. To achieve this coincidence of re-presentation an author might be tempted to state, categorically, an opinion with no supporting argument or data rather than to argue the point. But as well as understanding the author's point of view readers should, ideally, be able to manipulate the information for themselves and create their own re-presentation.

Data can be displayed in three basic forms – as words, numbers or pictures. The basic structures for displaying them are the sentence, table and image. Words are best presented in sentences and pictures in images, but all three structures can be used to present numerical data (Tufte 1983: 178).

Words are an emotive topic and style a personal issue, but no matter what an author's own feelings the clear presentation of data is their prime objective. Jargon can ease and speed communication if used in moderation; unchecked it can block access to a subject for all but a privileged few. In a specialist topic, specialist vocabulary in unavoidable, but if it is to be used then it surely makes sense to clarify what the jargon means. The Keos and ULVS publications include explanations of the abbreviations they use (Cherry *et al.* 1991: 481-484; Barker, 1996: xv; Mattingly, 1996: 16-17, 320) but none of the reports include a glossary to explain the specialist archaeological terms used throughout the text. The ULVS geomorphologists however, do oblige – with two pages of technical terms and their explanations (Barker 1996: 80-82). Survey archaeology is a wide-ranging subject with numerous variations in methodology and technique – an explanation of a project's terms would be useful if only to prompt a reader's memory and so ease the flow of information.

Pictures can be as personal a choice as the words that are used in a report and their power to communicate can be underrated. Photographs in particular, when not of an artefact – where the subject is quite obvious – often appear to be badly targeted, or inappropriately captioned. They can display data but to do so the intended subject must be clear and central to the image and not a secondary point, half obscured and only noticed when the picture was developed.

Numbers are not really effectively displayed by a sentence if more than two quantities are to be considered; no direct comparison is possible in the arbitrary arrangement of a sentence on the page. Tables are most effective when displaying data sets of up to about twenty values and graphics are best suited for large sets of numbers (Tufte 1983: 56). Tables can be underused although it is interesting to note that they are far more evident in a report such as Voorrips *et al.* (1991) and, to a lesser extent, Given and Knapp (n.d) where statistical analysis is a large – and highlighted – part of the project analysis. This perhaps indicates a greater expertise or confidence in the manipulation of numbers.

A lot of space in this dissertation has been devoted to the presentation of graphical data. This is partly because it is less personal than writing style and there are technical points that can be discussed dispassionately, with a degree of objectivity. However, it is also an important area and one that is subject to much abuse, whether through misguided application, misunderstanding or practical limitations. It may seem easy to draw a simple graph, but the production of a graphic is no easy task; it requires the combined skills of an archaeologist, a statistician and an artist to collect and understand the data, to manipulate it meaningfully and to present it clearly on the page. Much of the discussion on presentation seems to have been negative, selecting examples from reports that highlight problems. This is not to suggest that I have a wholly pessimistic view of the subject, nor indeed that I have all the answers but in a similar way to Flanders (2001: /faq.html#siegel) I hope to highlight good practice by pointing out the bad. Further to that I have also discussed ways around some of the problems.

Presentation on-line uses very different techniques to traditional publication, but has the same basic aim to convey data clearly and without distortion, neatly integrating words, numbers and pictures with a minimum of superfluous ink, or pixels. For on-line reports to

be a realistic alternative to printed publication they have to react as quickly as books do. Computer users are impatient and, if they must wait for something to download, they expect it to warrant the delay. Large pictures and unnecessary gimmicks slow down web pages and infuriate users, but many designers insist upon including them – a prime example is the Cytanet web providers' home page (http://www.cytanet.com.cy). The main gimmicks on this page are flashing advertisements that distract attention from the information that the web site is really displaying – so the advertising works, but the host page has failed. The Google search engine's home page (http://www.google.com) by contrast is a model of restraint, with little more than the logo and the search window it downloads before a user has the chance to become impatient – an attribute all on-line publishers would do well to emulate. Archaeological web pages will have more content than the Google home page, but would do well to fall short of Cytanet's content. Sites that are slow to download and sluggish to move about waste the flexibility offered by digital publication that can allow the archaeologist to achieve virtually unlimited distribution of much larger quantities of work in far greater detail than is feasible with traditional publishing methods. Ineffective sites neither facilitate the in-depth study of their content, nor do they encourage return visits and without either of these, any archaeological data or ideas on such a site is inaccessible and effectively lost to the discipline.

**Comparability and Standardisation**

Regional survey aims to broaden the archaeologist's view out from the site to encompass whole landscapes. The picture can be broadened still further to take in other regions and landscapes. Considering multiple landscapes requires the comparison of different reports that, in all likelihood, will have been produced by different projects with different perceptions of survey and the landscape. Comparisons will be made much easier if data and conclusions are presented clearly and re-presentations easily accessible. Such comparisons may be complicated but, so long as they are approached with an understanding of the problems involved, they can be very successful and informative, as Alcock (1993: 33-92) has demonstrated.

One possible way of making comparison easier would be to standardise the presentation of archaeological survey reports. This question has been much debated and many guidelines laid down (e.g. Frere 1975; Cunliffe 1982; English Heritage 1991; Carver *et al.* 1992) but

to attempt to do more than suggest codes of good practice, however well intentioned is unworkable and unnecessary. The broad range of techniques, subjects, personal styles and characters involved in regional survey would make standardisation a formidable task. Laying down a set format for the pattern and content of survey reports would quite possibly deaden any creative or innovative spirit in those producing the work. On the other hand, creation often springs from oppression and a set of standards might prompt attempts at innovation whilst at the same time suppressing it – to the frustration of those wishing to branch out from the norm. One of the most convincing arguments against such standards is the question of who sets and who imposes them. To this extent an official line is unnecessary because a degree of standardisation exists in any case – imposed by house styles, publication considerations and fashion. Some wonder how we can accept the variety and theories that abound in archaeology without questioning a discipline that embraces such variety (Gardin and Peebles 1992: 3). But surely the whole essence of archaeology is one of variety – in subject, method, presentation and re-presentation. Without variety no one would have thought to challenge the established norms to develop regional survey and the landscape would still be viewed as a collection of sites with nothing of significance in between them.

Whilst essentially against the idea of standardisation myself, I should perhaps make some attempt, in conclusion, to establish my preferences for an archaeological survey's final report. I have, throughout this dissertation, been discussing publications aimed at the profession and make no allowances here for a wider, less involved readership. It is quite possible that a popular book will not be appropriate in every case, but every regional survey project should, in line with its responsibilities to subject and profession, produce a final report of its activities, findings and conclusions.

The printed page is, for the moment, the ideal format for the production of a final report. The internet, whilst developing fast, is too new a technology to seriously threaten the dominance of the monograph in archaeological reporting. Books require no specialist equipment and are far more easily portable than most practical computer hardware. The monograph needs to contain sufficient information for interested readers to re-present, for themselves, the project, its aims, methods, findings, interpretations and the studied landscape itself, without reference to other sources.

Limitations on space dictate that a monograph cannot contain a project's entire data set, not even with recourse to a second volume devoted to it. But the monograph needs to contain a representative sample of the archive in order to present credible arguments for the project's conclusions. My preference is for only limited integration of this data into the arguments they support. If it is too closely integrated there is a danger that readers will not be able to separate information from interpretation and will be prevented from re-presenting a subject for themselves. Ideally a monograph would be backed up by, but not reliant upon, the project's full data set – available on-line from a reliable source. Whether that source is a web site managed specifically for the project or it is an archival resource such as the Archaeological Data Service it is vital that it be curated and maintained in a current accessible state.

The reader's passage through the work should be eased by a clear writing style, as free from jargon as is possible. Where technical terms are unavoidable they should be concisely defined in a glossary of terms that is prominently positioned at the front of a publication, and not hidden away, almost as an afterthought towards the end. Any graphics used would be free from extraneous decoration, appropriate to and associated as closely as possible with the argument they are intended to support. Colour, used sparingly and appropriately can enhance the accessibility of data and improve the look of a publication, used without thought it can swamp information as perceived style overcomes the content. The overall style of a presentation should be open and clear; the process from aims to conclusion clearly laid out and then followed through in the monograph as a whole. Above all, any rules or prescriptions should be applied with flexibility and imagination to allow the publication to serve its subject as efficiently and as stylishly as possible.

- Printed, standalone monograph.
- Representative data set, backed up by an on-line archive.
- Limited integration of raw data and interpretation.
- Jargon-free language – glossary of unavoidable technical terms.
- Precise, appropriate graphics.
- Colour as a tool, not as decoration.
- Clear statement of project's path from aims to conclusions.
- Flexible, imaginative application of rules.

Traditional archaeology tends to produce the story of an artefact or site whilst regional studies aim to develop the story of a landscape. However, if the perception of an ancient landscape can begin with the perception of a single artefact, then perhaps there is less dividing the two camps than is at first apparent. Whatever school we favour, if we are transparent in our process and chart our work from the initial idea to the printed page, then re-presentation and comparison will be easier for everyone. As I was always encouraged to do in mathematics, we should show our workings, so that others can understand the answer we arrived at.

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# Looking at Landscapes

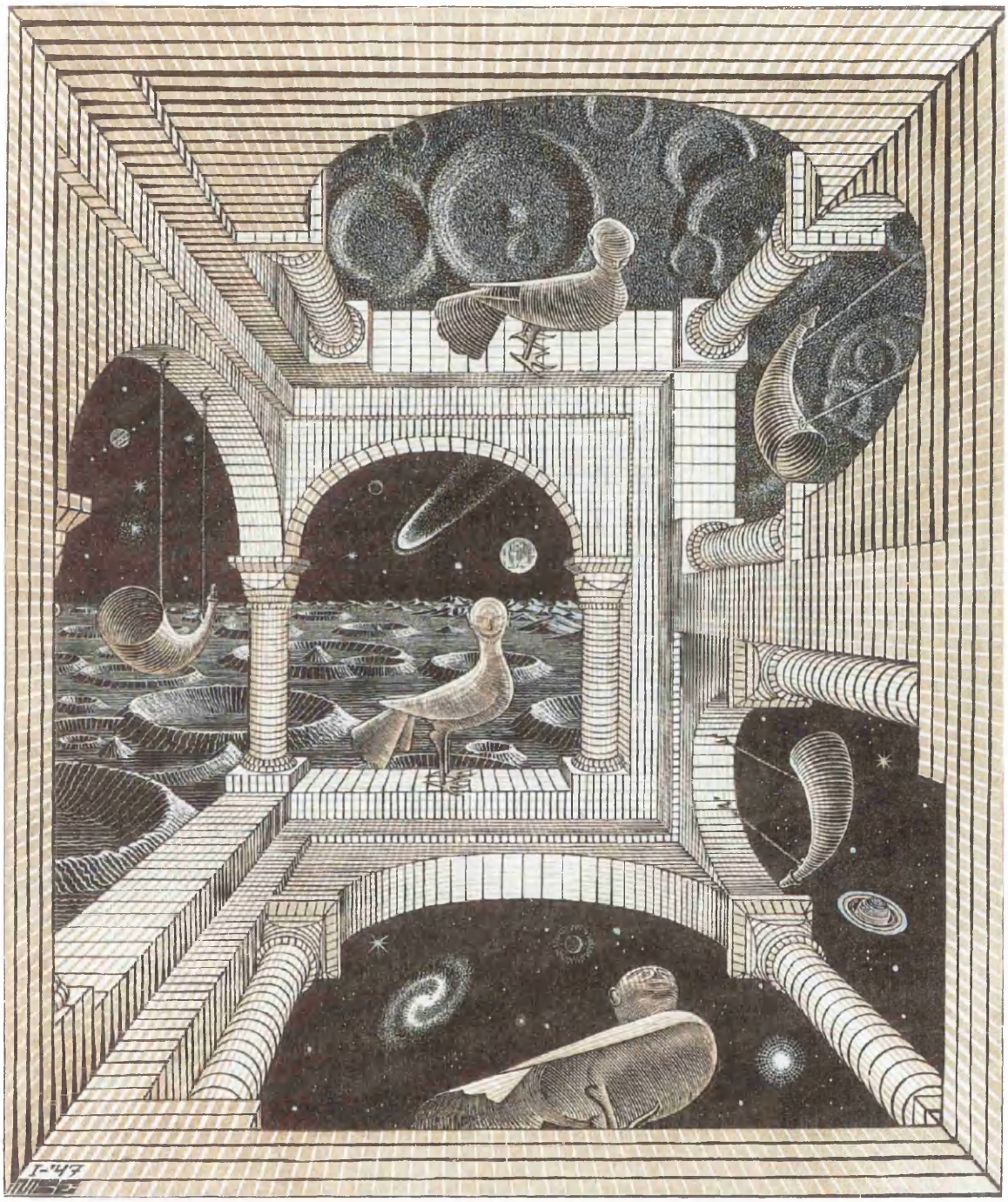

**Figure 19. Another world II by M.C. Escher**